

The
**DENTAL
DIGEST**

September
1933

UNIVERSITY OF MICHIGAN

It's a NEW DENTAL X-RAY UNIT

CDX Model E

with Coolidge tube immersed
in oil

TEN years ago the Coolidge CDX X-Ray Unit was introduced in dental practice.

Today it is found in thousands of dental offices and institutions the world over. These users voice their enthusiastic approval of Dr. Coolidge's ingenious CDX design, which made dental radiology conveniently practical, highly efficient and 100% electrically safe—*shock proof*.

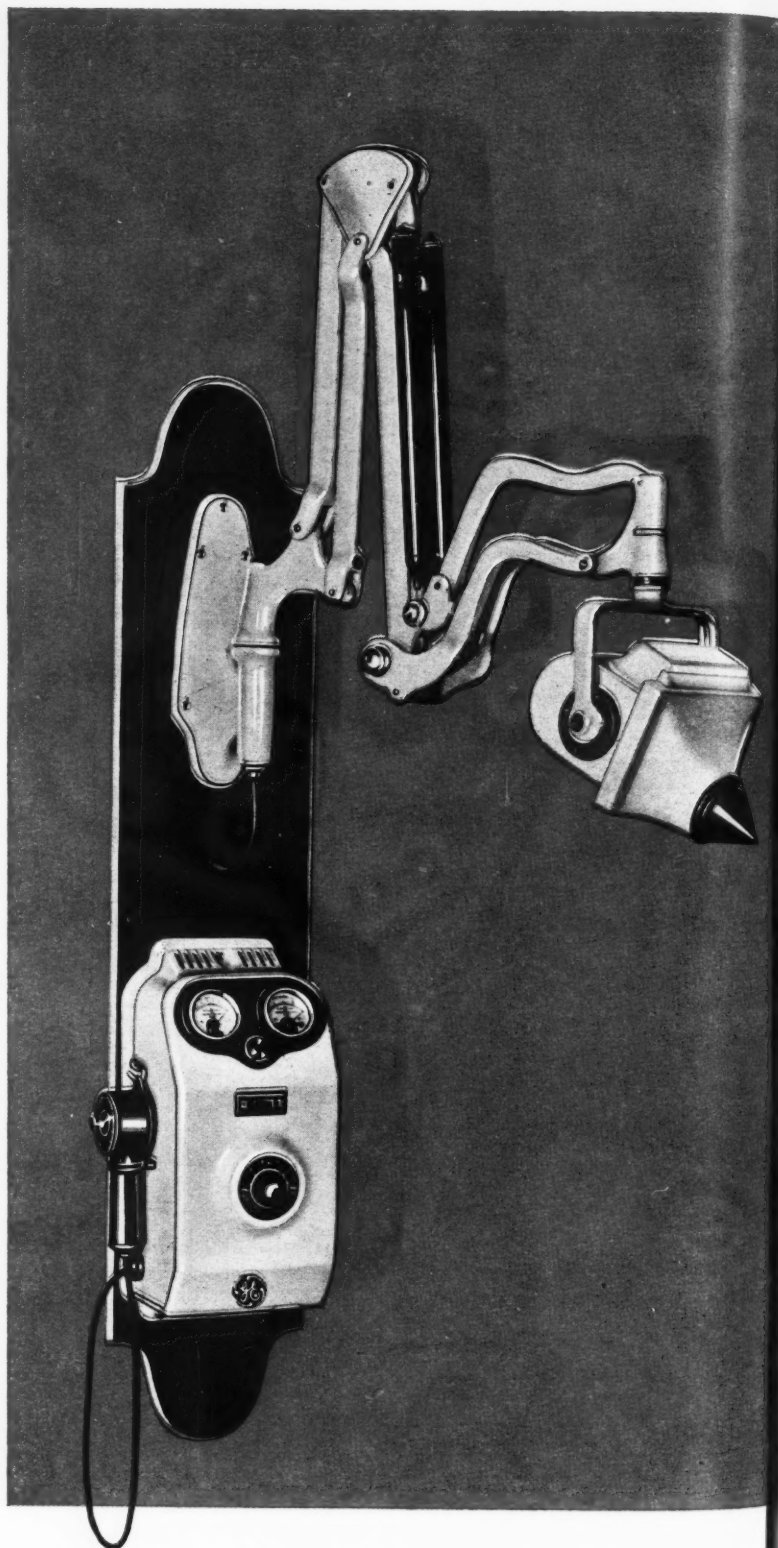
Ask a CDX user what he thinks of his outfit. We feel perfectly safe in predicting the usual answer: Eminently satisfactory in every respect—a boon to dental practice—see no room for improvement.

Dentists who attended the Centennial Dental Congress in Chicago, and saw the new CDX—Model E, are still talking about it. They observed a number of important changes and improvements in an apparatus which for years was conceded to be the ideal for dental radiology. They saw the CDX in a new and still more attractive design, with added range of service, and increased efficiency.

Ten years of observation of CDX service in dental practice, and the incorporation of every possible improvement suggesting itself throughout this long experience, is represented in the new CDX which awaits your critical inspection. We are sincere in our belief that it will prove an inspiration; a challenge to the profession for a more general use of the x-ray in diagnosis and prognosis. In short, a distinct contribution toward better dentistry.

May we send you all the particulars, including the convenient extended payment plan?

Use Coupon on page 372



General Electric  X-Ray Corporation

2012 Jackson Blvd.

Formerly Victor X-Ray Corporation

Chicago, Illinois



The DENTAL DIGEST



VOLUME 39

September, 1933

NUMBER 9

Roofless Dentures - - - - -	326
<i>L. A. Hawkes, D.D.S.</i>	
The Editor's Page - - - - -	329
Impacted Mandibular Third Molars: Classification and Modified Technique for Removal - - - - -	330
<i>Glenn J. Pell, D.D.S., F.A.C.D. and G. Thaddeus Gregory, D.D.S.</i>	
Letters to the Editor - - - - -	338-360
A Complete Full Denture Technique - - - - -	339
<i>C. J. Stansbery, D.D.S.</i>	
6. The Adjustment of the Tripod	
About Our Contributors - - - - -	343
Dental Economics: The Old Order and the New - - - - -	344
<i>Edward J. Ryan, B.S., D.D.S.</i>	
The Dental Scene - - - - -	358
Report of a Case of Salivary Calculus in Wharton's Duct - - - - -	359
<i>E. J. Mohn, D.D.S.</i>	

EDWARD J. RYAN, B. S., D. D. S., Editor

ETHEL H. DAVIS, A. B., Assistant Editor

An Oral Hygiene Publication.
Published monthly on the fifteenth
by Dental Digest, Inc.

Entered as second class matter at
the Postoffice at Ashland, Ohio, un-
der the Act of Congress, March 3,
1879.

PUBLICATION OFFICES: 636 Orange
St., Ashland, Ohio.

EXECUTIVE OFFICES: 1125 Wolfen-
dale St., Pittsburgh, Pa.

Merwin B. Massol, Publisher;
Lynn Allen Smith, Treasurer; As-
sociates: J. J. Downes, J. W. Kauf-
mann; W. Earle Craig, D.D.S.;
R. C. Ketterer, Publication Man-
ager.

Subscriptions should be sent to the
Executive Offices, 1125 Wolfendale
St., Pittsburgh, Pa.

Manuscripts and correspondence
regarding editorial matters should
be addressed to the editor at 708
Church Street, Evanston, Ill.

Subscription rates, including
postage:

\$2 per year in the United States,
Alaska, Cuba, Guam, Hawaiian
Islands, Mexico, Philippines, Porto
Rico. To Canada, Great Britain
and Continent, \$2.75; Australia,
\$4.25. All other countries, \$2.75.
Single copies, 25c.

DISTRICT OFFICES:

Chicago: Peoples Gas Bldg.;
W. B. Conant, Western Manager.

New York: 18 East 48th St.;
Stuart M. Stanley, Eastern Man-
ager.

St. Louis: Syndicate Trust Bldg.;
A. D. McKinney, Southern Man-
ager.

San Francisco: 155 Montgomery
St.; Roger A. Johnstone, Pacific
Coast Manager.

Los Angeles: 315 West 9th St.

Copyright, 1933
by Dental Digest, Inc.

ROOFLESS DENTURES

L. A. HAWKES, D.D.S.

Pittsburgh



Fig. 1

Fig. 1—The finished roofless denture.

Fig. 3—Final impression. The patient had been wearing the roofless type of denture for eight years. The seal lines showed clearly, and never showed signs of the slightest irritation. This case presents nearly an undesirable flatness, with lack of favorable condyle formation, yet it is doing satisfactory service.



Fig. 3

ABSENCE of palatal insulation shows several advantages that the patient appreciates greatly: (1) sensations from thermal changes, (2) improved tasting ability, (3) less bulk and weight, (4) less interference to the tongue, and (5) a relief from tendency to gag.

The real misfortune of the average prosthodontist lies in the fact that he does not have the benefit of knowledge obtained by wearing a denture himself. If some were to wear the appliances they produce for their patients, their effort would either show improvement or be discontinued. Today's requirement is for simplified methods that yield results, rather than elaborated techniques.

Roofless features are not new. In 1840 Greer of New York obtained a patent for a denture consisting of two metal swaged plates soldered together; the inner plate had several holes drilled in it in order to obtain a suction. Since then many roofless dentures have been made. The more recent construction contains several air chambers. Objections have been raised because of its effect on the mucosa, although many of these dentures are worn with apparent satisfaction. By making the entire denture a suction appliance and by obtaining complete peripheral seal, the same advantages as in the full denture are possible with less bulk and weight and without danger of tissue distortion.

Certain features require extreme accuracy of accomplishment; a perfect model with tissues at rest and in use; registered, balanced occlusion; a palatal peripheral margin that is adjust-

able to the changing requirements of the mouth.

Experience with cases in which good condyle formations are lacking leads to the opinion that any denture wearer can successfully use a roofless type, although there are those patients whose attitude might make this impossible.

For first experience it is advisable to select favorable cases only, until one's confidence is established. The greater effort necessary on the part of the operator entitles him to an additional fee, and the advantages that the patient will enjoy, warrant it. It is good practice first to ask the patient to wear the full palate case for two or three weeks until the initial soreness has disappeared and the sealing features have become acceptable to the mucosa. Then the palatal portion may be removed and the palatal margins finished to the necessary requirements of the case. In this way the patient has the advantage of knowing by comparison which type he prefers. This method of procedure has proved satisfactory.



Fig. 2—Base plate material adapted to cast and teeth set up on this base plate.

Opposing molar occlusion is necessary, and if it is deficient it should be corrected before attempting a roofless denture.

The initial impression does not have to be especially accurate (the use of modeling compound will save time), for the final closed mouth impression will overcome inaccuracies. Mounting of the model and bite are details which are well understood.

With the model mounted on the articulator, base plate material is adapted to the cast, and the teeth are set up on this base plate (Fig. 2).

When the case is tried in and necessary corrections are made, it is important to note the relation of the buccal and labial portions of the base plate. With the teeth in occlusion, by holding the tissues outward from the plate, one should make certain that the margins of the base plate are free from any interference by at least an eighth of an inch around the periphery of the base plate, especially around the labial frenum. This freedom is necessary for two reasons: (1) If the base plate interferes with the tissues, true registration in the impression will not be obtained; (2) if, on removal from the mouth, any portion of the plaster margin breaks away it will be easier to replace. With all corrections completed the case is ready for the closed mouth impression.

FINAL IMPRESSION TECHNIQUE

While the case is in the mouth during try-in, the patient is instructed in the proper use of muscle action when the final impression is taken.

Instructions to Patient—The patient is told to bite solidly but not

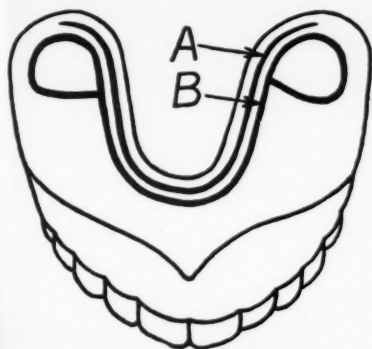


Fig. 4—Diagram showing path of bead lines, B, a continuous line completely surrounding the condyles on both sides, and A, a secondary line.

hard enough to affect the wax, all possible muscle movements being used gently but to extremes, especially pursing of the lips as in whistling.

It is often well to allow patients a few moments alone with a mirror so that they may watch their movements without embarrassment. They must know what to do and how to do it before insertion is made for the impression. If the operator explains what is desired, better cooperation will follow. Patients must know that these movements must be continuous while the plaster is setting. The setting takes a few minutes.

Truplastic Mix—Truplastic is mixed to the consistency of thin cream, and the plate is filled and inserted into the mouth. One should be particular to get the case in exactly the right position, and be guided by the occlusion of the teeth. If the Truplastic should be thick enough to cause resistance, it would have a tendency to push the cast too far forward, producing false occlusion; to use sufficient backward pressure to get it in proper place, which can be determined by the occlusion of the teeth. Immediately the patient should begin muscular movements as previously described.

Posterior Palatal Impression—It is

also necessary to get the impression of the posterior palatal tissues as they will appear on sneezing or coughing; this can be done by holding the nostrils shut, with closed mouth, and asking the patient to blow hard through the nose. This will distend those tissues downward. This should be done several times before setting is completed.

Drying of Tissues—I have found that tissues dry out during the taking of the impression. Relief is obtained partly by using a mouth wash just before removing the case.

Removing Impression—Removal should be done gently and gradually to avoid breaking the margins. If the impression can be removed easily, probably it will show signs of discrepancy. If there is any doubt as to accuracy, the Truplastic should be removed and another attempt made. One cause for failure may be a lack of sufficient material to reach the extreme high points of the periphery sufficiently for the tissues to register fully. This portion of the impression is of vital importance and must be perfect.

Closed-Mouth Impression Technique Recommended—The open-mouth impression, as in the case of the initial snap impression will not suffice; for in that strained position,

the tissues are not in the same positions as when the mouth is closed during mastication; hence the necessity of a closed-mouth impression technique. Properly accomplished, the finished case will seat immediately and future adjustments are unnecessary.

Modeling and Flasking—If conditions are found to show no imperfections, the case is ready for either model-making, which will necessitate resetting the case, or immediate flasking. Making of the model and flasking are done at one operation.

When the flask has been opened and boiled out to remove the wax, the Truplastic should be removed without scarring the model, after which the model is ready for preparation of bead lines for seal.

Bead Lines—This preparation consists of carving into the model two parallel grooves, so formed that without irritation they obtrude into the mucosa sufficiently to seal the palatal margins from ingress of air and food. Tissues that are thicker require a more pronounced bead than those that are thinner. This must be determined by examination of the mouth, and the snap model affords an excellent opportunity to register the conditions for use at the laboratory. Some tissues will stand a bead of 2

Fig. 6—The edge is turned up by using a one-fourth inch round brass rod with a handle of wood. The instrument is heated over a gas flame, and placed at one end of the area to be turned with a rotating movement. The instrument is held firmly against the edge until it is seen moving. Rotation is done slowly, always in the same direction, the turn being made evenly and only slightly. It can be increased later if necessary.

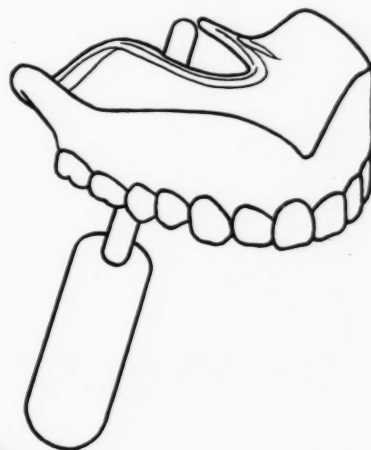
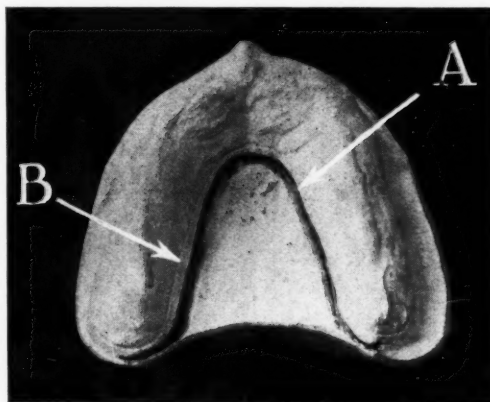


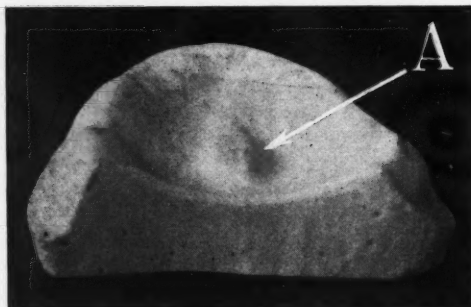
Fig. 5—A case with ideal formations of ridge and condyles, large, bulky and rounding, making an extreme palatal exposure possible; however, a much smaller opening of that surface seems to give the same benefits even if only one-half inch wide. The width of palatal exposure is of secondary importance; the greater consideration is to obtain equal resistance of the stress-bearing areas; hence the necessity of avoiding unsettled mouth conditions, and the mouth condition is not certain usually until one full year after extraction of the teeth.



mm.; thinner tissues, only 0.5 mm. in height. If in carving these lines upon the model, it is overdone, correction can be made on the finished case by reducing the bead with sandpaper discs to required proportions; hence, it is preferable to carve a little too deeply than not enough.

The accompanying diagram (Fig. 4) illustrates the general path of bead lines—B, a continuous line completely surrounding the condyles on both sides, and A, a secondary line. These lines should be separated by one eighth of an inch. Another space one eighth of an inch exists between

Fig. 7—Palatal protuberance; ideal presentations for the palateless type. Nearly all such patients seem to have grave apprehensions about wearing dentures successfully, and they welcome the prospect of a denture without a palate.



line A and the margin. With these essentials in mind, the mouth should be examined, and registrations made upon the primary model for laboratory information.

Tissue Determination—With the finger or an instrument placed upon the ridge at the median line, one palpates posteriorly to where the rugae area ends. In many cases a softer spot is found, through the center of which, bead B should pass. If such a spot cannot be located, the bead is carved just posterior to the rugae. The palatal margin should rest upon the surface of the mouth where the harder area begins to disappear. If one follows along from the median line toward the ridge, this is easily determined. Examination of the ridge will show a quality of flexibility to pressure. If possible, one should try to locate the same degree of flexibility at the palatal margin. The object is to have equal resistance register on

mastication by tissues of the ridge and those of the palatal margin; if unequal, it is more difficult to maintain a seal at the palatal margin.

Where the condyle on the buccal area shows any undercutting, it is not advisable to carry the inner bead line, B, farther than to the median line of the ridge. If carved upon such a surface, insertion or removal of the denture may prove uncomfortable.

It will be noted in the diagram (Fig. 4) that line A does not cross the median line of the ridge. Further beading of the model has never proved of benefit; in fact, it has been shown to be detrimental, especially about the buccal and labial areas.

Finishing—From this point, the case is ready to finish in the usual manner; it is left with the palate intact, to be so worn by the patient for two or three weeks until initial irritations are controlled and the necessary adjustments made. The

next step is to remove the palatal portion as shown in Fig. 1.

The palatal portion should be removed to within one eighth inch of outer bead line, A, and left tapered to knife edge. The edge should be polished back slightly with a felt cone and pumice, just enough to round the edge slightly.

Should the patient return with the complaint of lack of adhesion, finger pressure upon the various surfaces sometimes will show air bubbles. Where this occurs, the edge should be turned upward slightly (Fig. 6).

It is for the turning procedure explained in Fig. 6 that the thin edge is essential, and sometimes it is necessary to thin down the edge to different proportions to be able to make the necessary turn successfully. Care must be used not to turn the edge farther than necessary to establish the seal; soreness will result if the turn is too great. The flatter the mouth, the more difficult it is to retain adhesion; the more bulky and prominent the ridges, the easier the case. However, success has been attained with mouths presenting the most unfavorable condition, which leads to the opinion that the patient's mental attitude plays a major part. Immediate dentures should not be attempted for the non-cooperative patient. Tissue changes that follow are bound to cause disturbances that are best avoided.

128 Oakland Avenue.



Fig. 8

Figs. 8 and 9—The extreme of possibilities: Two views of the case, mounted on plaster models, illustrating the palateless principle on one and on the other, absence of gum front. Eleven such cases are in use and all are giving satisfactory service. The patient in this case when laughing raises the upper lip so high as to expose tissues beyond the denture if the gum front were to be used; hence the experiment, which proved surprisingly successful and led to attempts with others that are satisfactory to date. In all these cases the psychologic factor was ideal and the cooperation of the patients of the best.

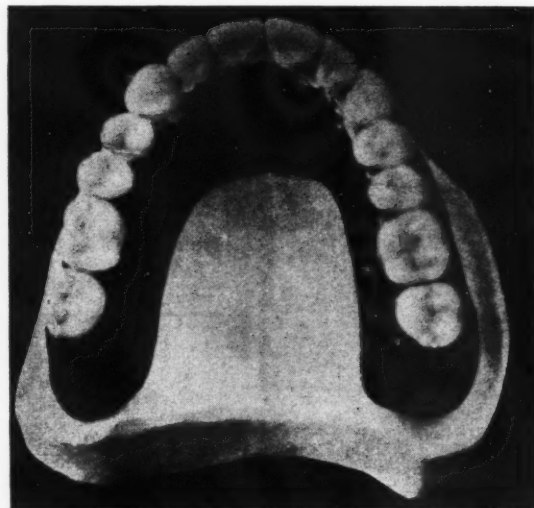


Fig. 9

The Editor's Page

IF TESTIMONY is needed to prove the value and the need of organized dentistry, the Chicago Centennial Dental Congress was eloquent proof. In the fourth year of business depression the largest meeting in the history of dentistry was held last month in Chicago. Of the total official registration of 13,370, there were 770 from foreign countries. The all-time high for attendance at commercial exhibits was reached with a figure of 74,000 separate admissions.

Frequently excellent scientific dental meetings have been held of intense value to the members in attendance, but the news releases about these meetings have been such as to degrade rather than elevate dentistry in public opinion. A conspicuous feature of the Chicago Centennial Dental Congress was the excellent cooperation received from the Chicago newspapers, press associations, news magazines, and radio broadcasting stations. Not a single fantastic story of the meeting appeared in the press reports. *Time*, the news magazine, of August 21, carried an accurate, dignified account of the meeting. Every Chicago radio station assigned time on the air to speakers for the Congress; a total of more than ten hours was allotted for broadcasting. The success of intelligent and organized press relations should suggest that the American Dental Association might broaden its public relations activities to comprise a sustained effort to cooperate with the 1,923 daily newspapers in the United States and Canada with a combined circulation of about 40 million, with weekly papers, magazines, and the radio.

To publicize dentistry is not to ballyhoo dentistry; it is not paid advertising. There is much in dental science and progress that has news value to be released in proper form for popular reading. A vigorous and intelligent campaign should also include efforts to counteract unfavorable publicity: screeching headlines, such as "Tooth Carpenters in Meeting;" cartoons depicting the horrors of the dental chairs—all disparaging references to dentistry. The attitude of the public to dentistry can be favorably molded by shrewd efforts in public relations.

Because the circulation of this magazine includes ethical dentists who are nevertheless not members of the American Dental Association we should like to mention briefly a

few of the advantages of membership. *First*, organized dentistry supports and furthers scientific progress by sponsoring meetings, clinics, and publications. Perpetual post-graduate instruction is included in the nominal membership dues. *Second*, organized dentistry defends the ethical practitioner against quacks by sponsoring sound legislation and by cooperating in the enforcement of the dental practice laws. Recently, in Illinois a law became effective which prohibits obnoxious dental advertising and the corporate practice of dentistry. *Third*, the American Dental Association has a standing legislative committee that is constantly alert to the interests of all dentists by opposing unfavorable legislation and favoring desirable legislation in state legislatures and Congress. For instance, through the efforts of this committee dentists were permitted to withdraw whiskey and alcohol for therapeutic use; the status of the Army and Navy Dental Corps has been raised; protection against tariff increases is given; beneficial interpretations of tax provisions have been made. *Fourth*, through group insurance and the Relief Fund the economic life of the member is protected.

As one striking example of organized effort we may mention the recent ruling of the Treasury Department regulating the use of gold in dentistry. It was first specified that every dentist, every three months, was to submit an affidavit to the Department. Under this ruling it was estimated that 300,000 affidavits from the dentists in the United States would be required annually. The inconvenience, the extra work, the expense (estimated: 300,000 affidavits @ 25c each, \$75,000) to the dental profession was unnecessary. Through the efforts of the Committee on Legislation of the American Dental Association this ruling was modified so that now only one affidavit is necessary.

It is hoped that through the efforts of this committee the executive order of the President of August 29 regarding the regulation of gold will be modified in the cause of the public health. Under this order the cost of gold for commercial and professional use is to be raised from \$20.67 an ounce to \$30.00. In the interest of all dentists and of the dental health of all the people it is hoped this order will be changed.

IMPACTED MANDIBULAR THIRD MOLARS: CLASSIFICATION AND MODIFIED TECHNIQUE FOR REMOVAL

GLENN J. PELL, D.D.S., F.A.C.D.

and

G. THADDEUS GREGORY, D.D.S.

Indianapolis

THE importance of a complete analysis of the probable difficulties to be encountered in the removal of impacted mandibular third molars cannot be too greatly stressed.

Those engaged in the specialized field of oral surgery and exodontia have learned by experience to analyze and classify these cases. The general practitioner, however, because he is less often called to operate on impactions, frequently begins an operation that is beyond his ability, or fails to recognize abnormalities that alter the technique of removal. Naturally this is detrimental to the dentist, who loses the confidence of his patient, and to the patient, who is subjected to the unnecessary discomfort of a prolonged and perhaps unsuccessful operation.

Our classification was first evolved several years ago to rationalize the teaching of this subject at the Indiana University School of Dentistry. It is our purpose in presenting this work to give to the general practitioner and the student a means of analyzing the potential anatomic problems involved preparatory to the removal of impacted mandibular third molars.

Fundamentally we do not offer much that is new. A study of third molars in relation to the ramus is advocated by Doctor Wilton W. Cogswell in his new book, *DENTAL ORAL SURGERY*. The diagnostic importance of the relation of the tooth to the long axis of the second molar was recognized years ago by Doctor George B. Winter. Many others have from time to time offered invaluable contributions to the never-ending study of this problem. We have merely united these various studies to make a more comprehensive analysis of the whole problem.

In the accompanying outline of the classification and the illustrations we attempt to grade impactions according to the relative difficulty that will be encountered in the effort of removal. The unknown quantity; i. e., individual peculiarities and idiosyncra-

sies, has naturally been disregarded. We believe that, if, in every case, the operator will by a careful study of properly made roentgenograms ascertain the relation of the tooth to the ramus; the depth of the tooth in bone; the position of the tooth in relation to the long axis of the second molar, and if he will make a careful examination for complicating abnormalities—then, he will be able to make an intelligent prognosis to his patient. By self-analysis he can determine whether or not his skill is sufficient to justify his undertaking the case. For example, a Class I, position A, mesio-angular impaction is comparatively easy; on the other hand, a Class III, position C, horizontal impaction will tax the ability of the best of operators.

MODIFIED TECHNIQUE FOR THE REMOVAL OF IMPACTED MANDIBULAR THIRD MOLARS

The primary object in any form of surgery is to perform the operation successfully and as skillfully and as rapidly as possible with the minimum amount of trauma to contiguous tissues.

The removal of impacted mandibular third molars produces varying degrees of traumatic injury to the surrounding hard and soft tissues. In years past these operations were accompanied by extreme pain, swelling and trismus. In many cases more alarming symptoms developed, and occasionally necrosis, osteomyelitis or periostitis occurred.

Each year has seen the development of refinements in technique with a consequent decrease in unfavorable postoperative sequels. Incisions are made and tissues retracted in a manner to give the maximum access and at the same time prevent harmful pulling and tearing of the parts. Care is exercised in removing bone, and if burs are used, they are so handled as to prevent overheating. Crude, massive elevators have been replaced by smaller and more scientifically correct levers that do not injure adjacent

teeth and tissues. Briefly, a method that is widely used is as follows:

The occlusal of the tooth is exposed; bone is removed on the buccal to permit the introduction of a lever; then bone is removed on the distal to allow the tooth to be elevated back into the space and unlock the tooth. There is always a certain amount of guess work in this procedure. Many times after relief has been obtained and the tooth elevated, it is found that the tooth still binds on the distobuccal or disto-lingual. Then more bone must be chiseled away until the impaction is completely relieved. This method requires the removal of considerable bone.

Recently some men have advocated the splitting of teeth to facilitate removal. It is a reasonable deduction that a technique of removal which entirely eliminates the necessity of cutting away the bone in some cases, and materially reduces bone cutting in all cases will shorten the operating time and minimize trauma to surrounding tissues.

During the past two years we have been developing a modified splitting technique which we believe worthy of consideration:

1. The crown of the tooth is exposed in the usual manner, and sufficient bone is removed on the mesio-cervical of the third molar to permit the introduction of a small lever.

2. Then an engine chisel or a mallet and chisel are used to split off the distal portion of the tooth. The chisel is placed as nearly as possible in line with the long axis of the tooth, and usually in the buccal groove. Unless the chisel has been placed on gnarled enamel, a single blow will suffice. No effort is made to split the roots, although this sometimes occurs. It is sufficient to split the distal portion of the crown and whatever amount of the distal root that is included. If a mallet and chisel are used it is advisable to hold the mallet loosely between the thumb and forefinger. The blow necessary to split a tooth in line with the long axis is negligible; a sharp, not a hard blow is all

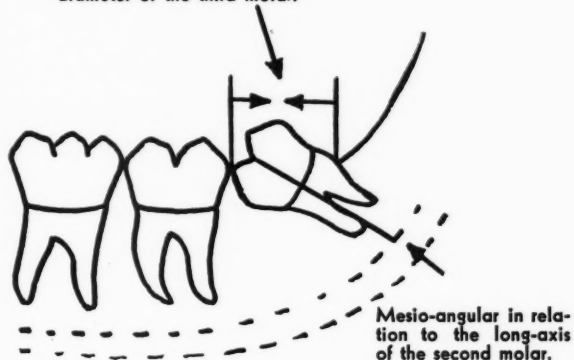
(text continued on page 338)

CLASS I

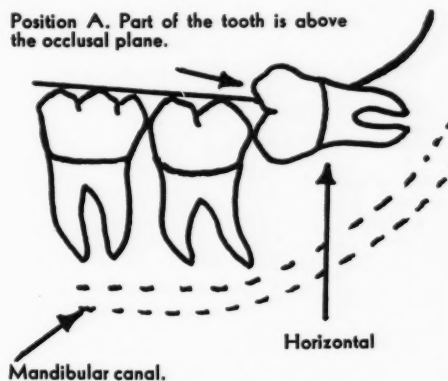
POSITIONS A B C

Class I impactions are those in which there is sufficient space between the ramus and the distal of the second molar for the accommodation of the mesio-distal diameter of the third molar.

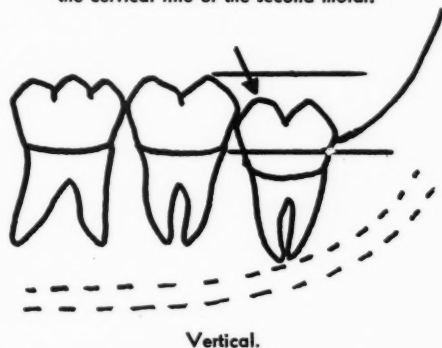
Class I. There is sufficient space for the accommodation of the mesio-distal diameter of the third molar.



Position A. Part of the tooth is above the occlusal plane.

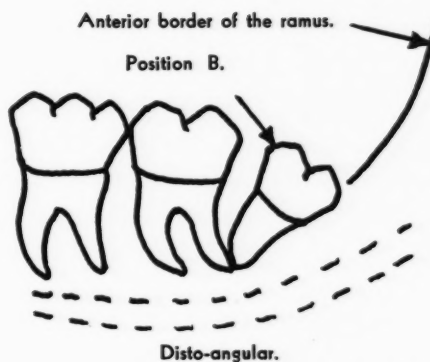


Position B. The highest portion of the tooth is between the occlusal plane and the cervical line of the second molar.

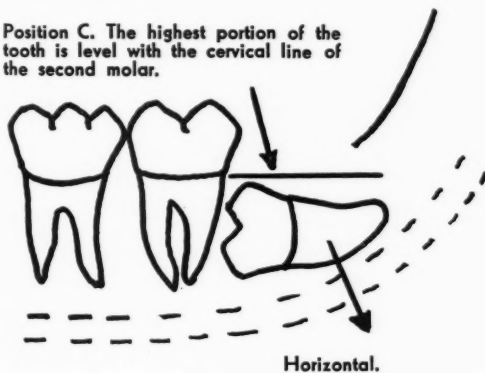


Anterior border of the ramus.

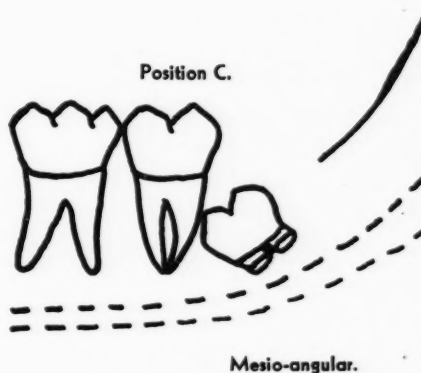
Position B.



Position C. The highest portion of the tooth is level with the cervical line of the second molar.



Position C.

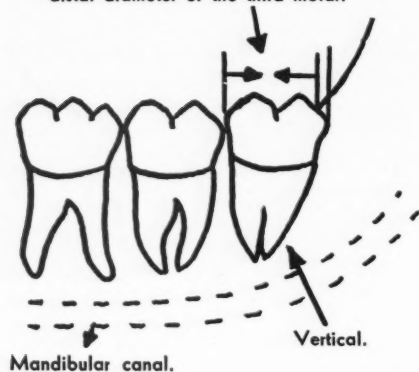


CLASS II

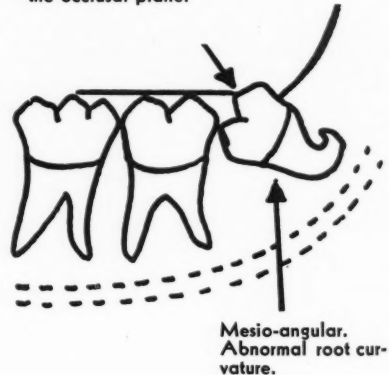
POSITIONS A B C

Class II impactions are those in which the space between the distal of the second molar and the ramus of the mandible is less than the mesio-distal diameter of the third molar.

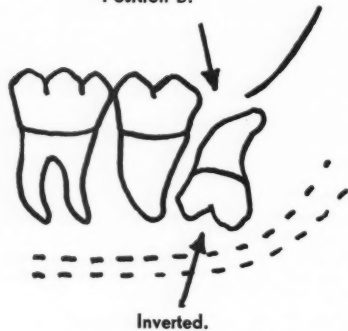
Class II. The space is less than the mesio-distal diameter of the third molar.



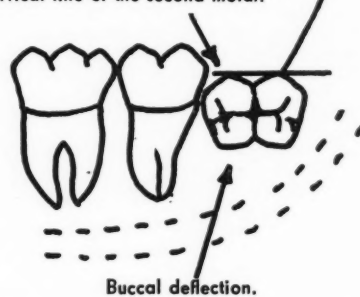
Position A. Part of the tooth is above the occlusal plane.



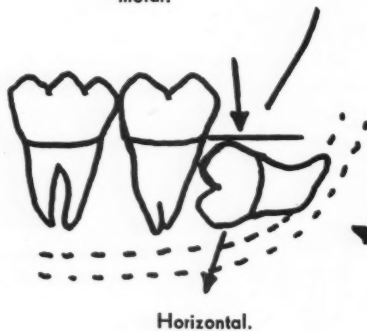
Position B.



Position B. The highest portion of the tooth is between the occlusal plane and the cervical line of the second molar.

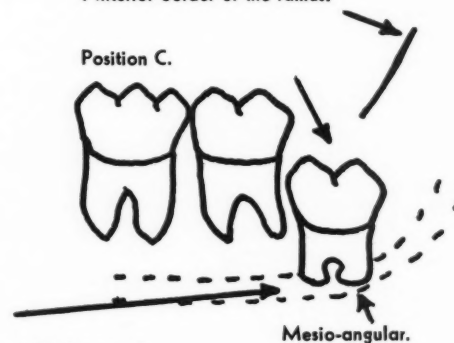


Position C. The highest part of the tooth is below the cervical line of the second molar.



Anterior border of the ramus.

Position C.



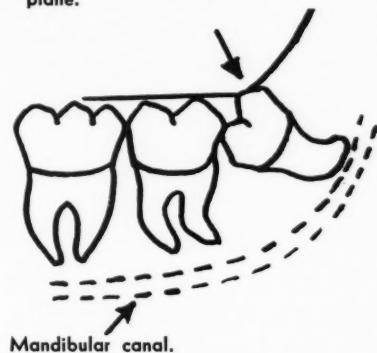
Note proximity to mandibular canal.

CLASS III

POSITIONS A B C

Class III impactions are those in which all or most of the third molar is in the ramus of the mandible.

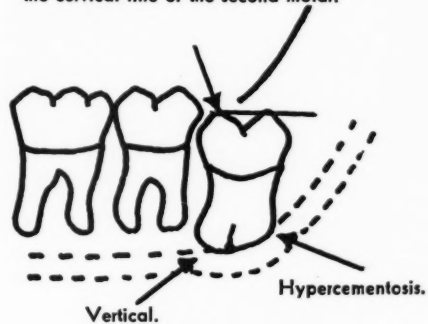
Position A. The highest portion of the third molar is on a level with the occlusal plane.



Class III. Most of the tooth is in the ramus.

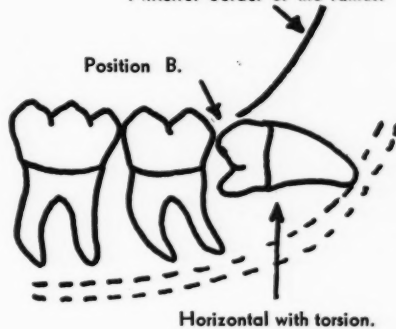


Position B. The highest portion of the tooth is between the occlusal plane and the cervical line of the second molar.



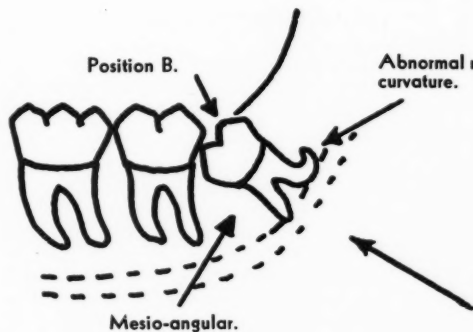
Anterior border of the ramus.

Position B.

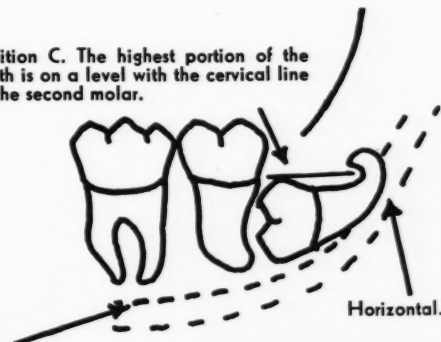


Position B.

Abnormal root curvature.



Position C. The highest portion of the tooth is on a level with the cervical line of the second molar.



Note proximity to mandibular canal.

ROENTGENOGRAPHIC STUDY OF THE CLASSIFICATION

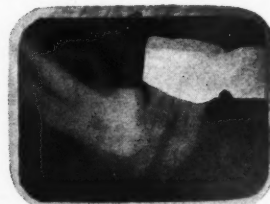
Class I



1A
Position A
Mesio-angular



1B
Position B
Vertical



1C
Position C
Horizontal

Class II



2A
Position A
Horizontal



2B
Position B
Vertical

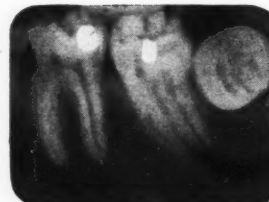


2C
Position C
Vertical with lingual deflection

Class III



3-B
Position B—Mesio-angular.
Note relationship to mandibular canal



3B
Position B
Complete lingual deflection



3C
Position C
Note relationship to mandibular canal

TECHNIQUE FOR THE REMOVAL OF A LOWER THIRD MOLAR
CLASS II POSITION A MESIO-ANGULAR

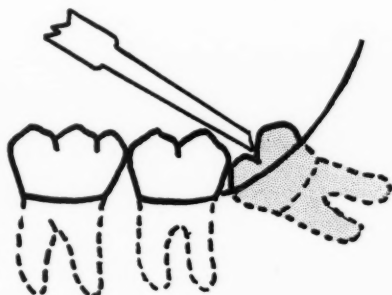
Buccal view showing clinical appearance of the case and the buccal incision.



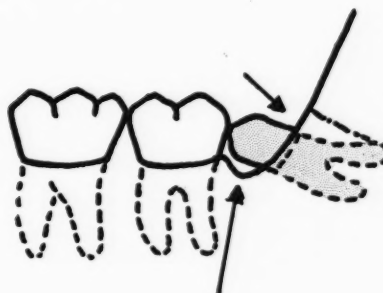
Occlusal view showing the incisions.



Chisel in place to split the distal portion of the tooth. (An engine chisel or a mallet and chisel may be used.)



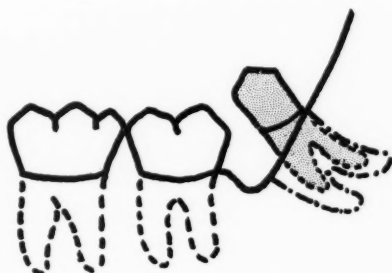
Distal portion of the tooth split and removed. Ample space is provided into which the remainder of the tooth may be moved.



To split a tooth it is advisable to hold the mallet loosely between the thumb and forefinger. A sharp, rather than a hard blow is all that is needed.

Sufficient bone chiseled away on the buccal to permit the introduction of a small lever.

The tooth has been turned into the space provided.

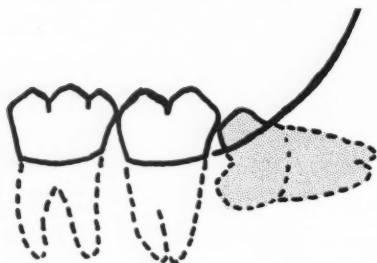


Incisions closed.



TECHNIQUE FOR THE REMOVAL OF A LOWER THIRD MOLAR
 CLASS II POSITION B HORIZONTAL

Outline drawing of the case.

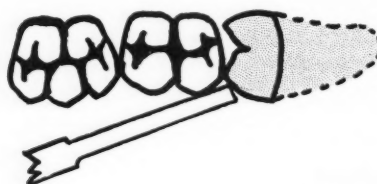


Point of application of the chisel to split upper portion of the tooth.

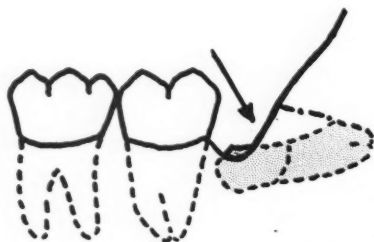


Sufficient bone removed on the buccal to expose the buccal groove.

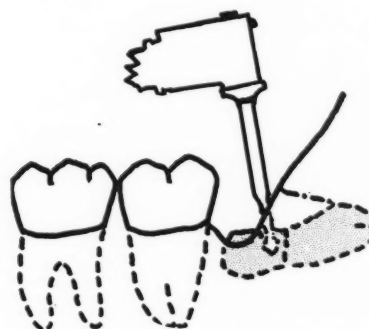
Occlusal view showing chisel in position to split the tooth



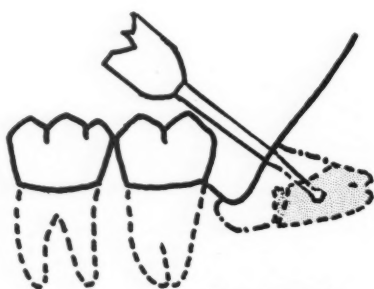
Upper portion of the tooth split and removed.



Spear-point or bi-bevel drill separating the remaining portion of the crown from the root.

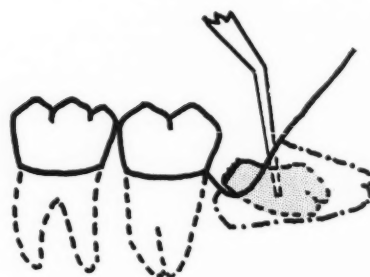


Drilling a hole in the root for the insertion of a lever.



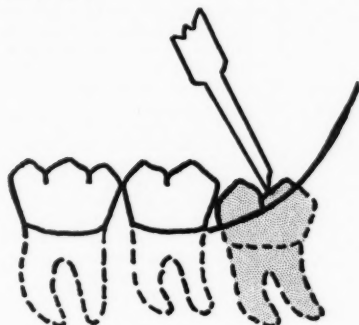
Crown removed.

Lever in place and the root brought forward into the space provided.

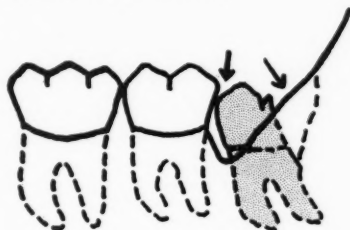


TECHNIQUE FOR THE REMOVAL OF A LOWER THIRD MOLAR CLASS II POSITION B VERTICAL

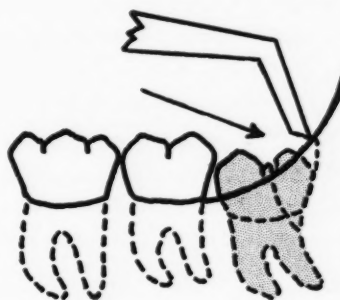
Chisel in place to split distal portion of the tooth.



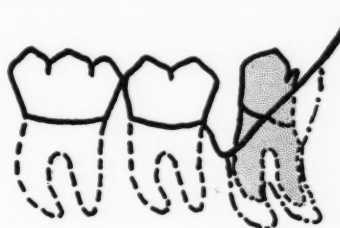
Split portion removed. Sufficient bone removed on the buccal to permit the introduction of a small lever.



Distal portion split. Chisel in place to remove sufficient bone on the distal to permit removal of the split piece.



Tooth turned back and up into the space provided.

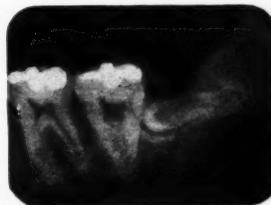


ROENTGENOGRAMS DEMONSTRATING THE REMOVAL OF A THIRD MOLAR



7-B (a)

Class II
Position A
Horizontal



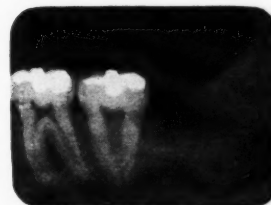
7-B (b)

The upper portion of the crown and part of the distal root has been split and removed.



7-B (c)

The remaining half of the crown has been split and is loose in the crypt ready to be removed.



7-B (d)

The roots have been pulled forward into the space provided and removed. Note that no bone was removed.

Analysis of the Potential Anatomic Problems Involved Preparatory to the Removal of Lower Impacted Third Molars

1. Relation of the tooth to the ramus of the mandible:
 - CLASS I Sufficient amount of space between the ramus and the distal of the second molar for the accommodation of the mesio-distal diameter of the crown of the third molar.
 - CLASS II The space between the ramus and the distal of the second molar less than the mesio-distal diameter of the crown of the third molar.
 - CLASS III All or most of the third molar within the ramus.
2. Relative depth of the third molar in bone:
 - POSITION A. The highest portion of the tooth on a level with or above the occlusal line.
 - POSITION B. The highest portion of the tooth below the occlusal line, but above the cervical line of the second molar.
 - POSITION C. The highest portion of the tooth on a level with or below the cervical line of the second molar.
3. The position of the tooth in relation to the long axis of the second molar:
 - (1) Vertical
 - (2) Horizontal
 - (3) Inverted
 - (4) Mesio-angular
 - (5) Disto-angular

These may also occur in

 - a. Buccal deflection
 - b. Lingual deflection
 - c. Torsion
4. Complications:
 - (1) Abnormal root curvature
 - (2) Hypercementosis
 - (3) Proximity to the mandibular canal
 - (4) Bone density
 - (5) Adipose tissue
 - (6) Lack of accessibility
 - (7) Inflexibility of the muscles of the mouth

(continued from page 330)

that is needed. (The recently developed engine chisels are especially effective.)

3. The split portion is now removed. In some cases it is necessary to remove a small section of bone on the distal to permit the removal of the split piece. In vertical and mesio-angular impactions all that remains to be done is to insert a small lever from the buccal and rotate the tooth back into the space provided by the removal of the split piece. In horizontal impactions it is frequently necessary to separate the remaining half of the crown from the roots at the neck. This is accomplished by drilling one or two holes in the crown and then splitting with a lever or chisel.

4. The remainder of the crown is then lifted out and the roots brought

Hume-Mansur Building.

forward into the space formerly occupied by the crown.

The advantages of this method of procedure are obvious:

1. Incisions are less extensive since no work is done distally to the crown of the tooth.

2. Bone cutting is eliminated or materially reduced.

3. Injury to surrounding tissues, and especially to the mandibular nerve, is avoided as forced elevations are unnecessary.

4. The operating time can be reduced 50 per cent, and the reduction in swelling and the almost complete absence of trismus will make the time spent in developing such a technique well worth while. Our results in employing this method have been highly gratifying.

LETTERS TO THE EDITOR

A NEW IDEA FOR DENTAL SERVICE FOR CHILDREN

"By the use of an inexpensive motion picture projector, I have eliminated nine-tenths of the various difficulties usually encountered in the treatment of child patients. In fact, a visit to the dentist has become a treat to these little people, and most of them request that the 'movies' be turned on as soon as they are placed in the chair.

"The projector is placed on an accessory table to the rear and left of the patient so that it does not interfere in any way with my operations from the right of the chair. The table is on castors so that it may be moved to various distances from the screen. I usually find that on a bright day it will be necessary to move the projector closer to the chair and screen, necessarily making a smaller but brighter image.

The chief difficulty was in eliminating as much light as possible from the screen surface. This was solved by constructing a shadow box from a cardboard carton 15 by 15 feet square and about 2 feet in length. The entire inside and outside were coated with dull black paint. A beaded glass screen 15 inches square was glued to the bottom of the carton and the entire shadow box placed on a radiator in front of the chair. The picture, therefore, is projected over the left shoulder of the patient.

"Films were obtained from a rental library in Chicago and from various organizations that lend their films. A 400 foot reel is usually shown and the film lasts about 16 minutes which should be time enough for most operations. Mickey Mouse, Felix the Cat, and Charlie Chaplin—the children love them and a threat to shut off the movies dispels any opposition from them."—PHILIP WEINTRAUB, D.D.S., Chicago.

"Your periodical deserves a lot of credit. I am especially interested in the excellent series of plates on 'educating the patient.' Unfortunately, I missed the February, March and April, 1933 issues. Will you kindly send me those copies so that my library will be complete?

"Our own beloved Dr. Prinz from U. of P. has recommended your magazine as a means of keeping abreast of modern dental achievements."—GEORGE J. PARKER, D.D.S., Bronx, N. Y.

"I want to congratulate you upon the sheer magnificence of your publication. It is unquestionably unique in its field."—DR. HAROLD R. JACOBS, Rockaway Beach, N. Y.

"Since I have only received two copies of THE DENTAL DIGEST, I find that I have missed something which I should have been getting for some time past and that is that I would like the issues of THE DIGEST of February and March of this year. As a matter of fact you can start my subscription from the February number."—DR. R. C. ALLEN, Mitchell, Nebr.

"I have to reiterate that I still enjoy reading your most up-to-date journal and wish you all success."—DR. J. BROWN DAVIES, Inverness, Scotland.

A COMPLETE FULL DENTURE TECHNIQUE

VI. THE ADJUSTMENT OF THE TRIPOD

C. J. STANSBERY, D.D.S.

Los Angeles

THE technique, carried thus far to the registration of the various mandibular positions by means of the plaster check bites, is now continued on the Denture Tripod. In its construction the Denture Tripod is a radical departure from the designs usually seen in dental articulators. It has no mechanical counterparts of condyle and condyle paths, nor incisal inclination guide; indeed, the usual arrangement of two supports in condyle regions and one at the anterior has been reversed; the Tripod has one distal and two anterior supports. For its intelligent use, a detailed description of its construction is now in order (Fig. 59).

THE DENTURE TRIPOD

The base of the Tripod is surmounted by a movable plate for the mounting of the lower cast. While this plate is movable, the movement is used only in the milling of the dentures; at all other times this plate is firmly attached to the base. The plate also carries three truncated studs for the accurate replacement of the casts if removed during denture construction. This movable or milling plate is attached at the distal by a screw through a slot in the plate which allows the plate to move only in a forward-backward movement. This screw, which also holds the milling plate snugly, but not sufficiently tight to interfere with its movement, is pointed out in Fig. 59, A.

Extending downward from the lower anterior surface is a five-sixteenths inch pin. This pin extends through a half inch ring bearing in the base and is held in this position by a sleeve or collar and set screw as shown in Fig. 69, A. In the milling operation this sleeve is removed and replaced by an eccentric pulley in which the inner bearing receiving the pin is .02 inch off center. As the pulley attached to the lathe belt revolves, it carries the pin attached to the milling plate in a circle of .02 inch radius (Fig. 60). The combination of this movement with the forward-backward movement at the distal can be demonstrated by holding the elbow against the side with the forearm horizontal and the palm up; the elbow is now moved forward and backward in combination with a circular movement of the hand. While

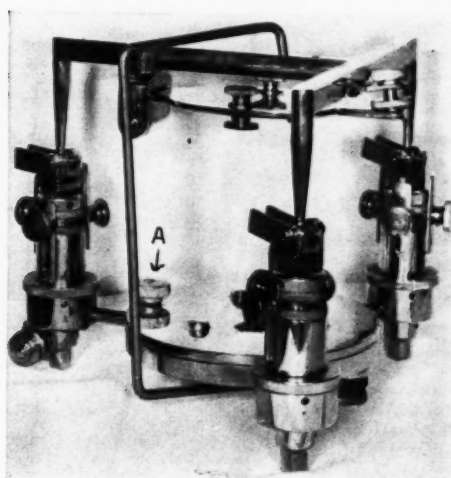


Fig. 59—The Denture Tripod.

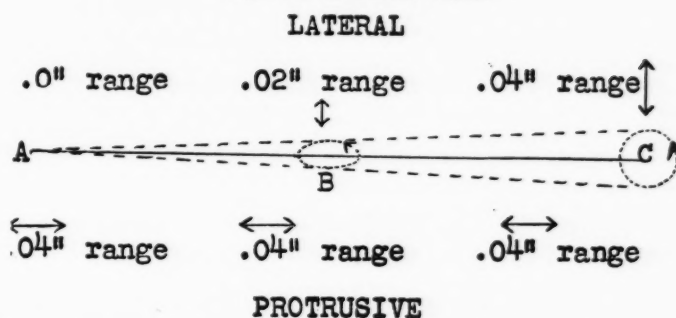


Fig. 60—The points A, B, and C that lie on the median line in condyle, molar and incisive regions, respectively, while the central sleeve is in place, move in paths as indicated when actuated by the eccentric pulley. It will be noted that the protrusive range is constant while the lateral range is variable, increasing from zero in the condyle region to a millimeter in the incisal. This should be recognized as a condition similar to the horizontal movement of the mandible.

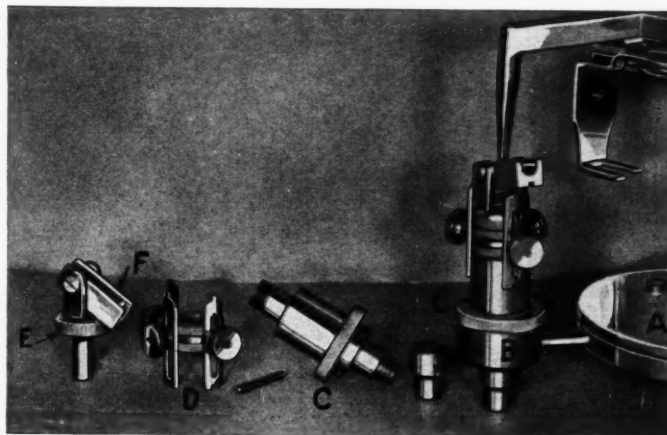


Fig. 61—Assembled and disassembled turret parts.

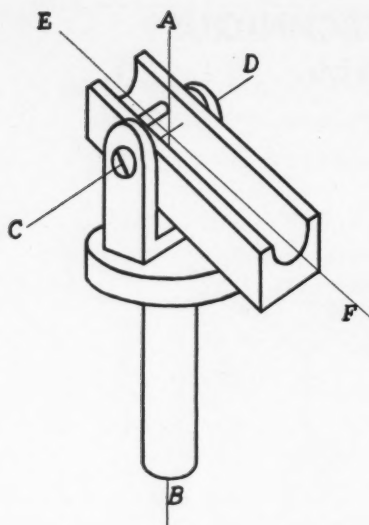


Fig. 62—Intersection of the axes in the movements of the guide blocks. The common point is at relative rest to the base of the tripod even though the block rotates around CD, or the entire part around AB. As the center of the ball always lies on EF, this center is also at relative rest to the base when against the stop shown.

these small ranges of movement amount to little more than vibration, they are ample to cause rapid grinding with an abrasive paste and accomplish that horizontal clearance so necessary to the comfort of finished dentures (Fig. 60).

On the Tripod base are attached three turret bases (Fig. 61, B), and in each of these are small openings marked by the letters R, P, and L. These letters signify right lateral, protrusion and left lateral. These three bases in turn receive the three turrets which are held in place by thimble nuts, which also act as feet for the entire Tripod. Directly over these turret bases are the large knurled bottoms of the turrets (Fig. 61, C); these are used to turn the turrets and have index lines that automatically stop over the small openings previously mentioned. Higher on the turret will be found a knurled ring with an undercut groove; this groove retains the heads of three screws but permits their free horizontal movement along the groove. These protruding screws each carry a slotted strut; the vertical height of this strut and its position against the knurled ring can be varied and held securely in any set place by its thumb nut. The thumb nuts also bear the letters R, P, and L, again signifying right lateral, protrusion and left lateral. The ring, the struts, the T-screws and lettered nuts make up the strut assembly (Fig. 61, D). The thumb

nuts should always read in the order given from left to right. The top of the turret has a knurled collar (Fig. 61, E), the function of which is to fasten the strut assembly firmly to the turret and hold in place the vertical shaft of the grooved guide block (Fig. 61, F).

This grooved guide block surmounting the entire turret is the most important part of the Tripod. It is hinged at one end on a vertical shaft which ends in a fork to engage the block, and the shaft of this Y-shaped piece is carried by the turret and has a vertical axis in common with the turret and turret base. The hinge in the fork is a matter of precision in its placement as its horizontal axis must exactly intersect the vertical axis of the shaft. It is thus evident that this common point of axes is stationary in all movements around the vertical axis of the turret or shaft of the Y, or movements of the grooved block around the horizontal axis.

The groove of the block is U-shaped, the lower portion of the groove being exactly circular in cross-section and one-fourth inch in horizontal diameter. This groove is so accurately placed in the block that the axis of its circular portion also passes through the common point of the vertical and horizontal axes. There are now three lines all passing through this common point; no matter how the block is rotated around the vertical, or elevated around the horizontal axis, the axis of the groove will always pass through the common point (Fig. 62).

The upper member of the Tripod has three legs, each leg terminating with a one-fourth inch steel ball and so spaced from the other two that when placed on the guide blocks of the lower, the center of each ball

will also be at the exact common point of the three axes just described. The stability of the tripod in this position is assured by a stop placed across the groove one-half the diameter of the ball from the common point and securing the guide at an upward inclination. This gives us an exact relation or position of the upper to the lower member of the Tripod; a position to be used in mounting and maintaining centric relation. As the diameter of the ball is one-fourth inch, its curvature will perfectly fit the bottom of the groove in the hinged block, and as this ball moves along the groove its center will always be on the axis of the groove.

Beneath the upper member of the Tripod is a plate (Fig. 69), suspended distally by a hinge and forward by an attached screw. This screw, passing through an extended tongue, carries a graduated thumb nut (Fig. 69, B) by which the plate can be raised or lowered, and a lock nut to secure its position (Fig. 69, C). This movement is limited and is *not* intended to be used to "open or close the bite," but as a convenience in milling the teeth. A mounting jig (Fig. 66, A), so designed as to place the casts in relation to this hinge according to the average position of the opening axis as determined by Doctor Gysi, a spring clamp to maintain relation while adjusting the guide blocks, and a milling pulley, as accessories, complete the Tripod.

TECHNIQUE OF THE TRIPOD

1. The Tripod should be inspected to see that the centric sleeve and *not* the pulley is in place, and that the graduated thumb nut is level with the screw end of the upper plate.

2. The graph plate and style are removed from the tongues of the registration plates, as their work is done, and recorded in the check bites.



Fig. 63—Placing the jig on the tongue of the lower registration plate.



Fig. 64—Placing the jig on the upper mounting plate.



Fig. 65—Placing the suspended lower cast on the tripod.

The centric screw is now fully lowered. The casts are removed from the plain line instrument, thoroughly soaped and rinsed to assure their easy removal from the Tripod, and the lower cast is securely waxed to accurate position in the lower base plate.

3. The tongue of the lower registration plate is inserted in the placement jig and the whole suspended from the upper member of the Tripod (Figs. 63, 64, 65). Fig. 66 shows this assembly in position for mounting before the plaster has been used for its attachment to the base. It will be noted in this illustration that all guide blocks are supported by struts holding the guides in an inclined position to allow the balls of the upper to slide to the hinged ends of the guides by their own weight. Fig. 67 shows the casts attached to the base of the Tripod. No great accuracy is necessary in this step as there is no relation to the opposing cast being registered.

4. The jig is removed by holding the upper part of the Tripod firmly down and pulling the jig forward.

5. The centric check bite is placed

on the registration plate, as shown in Fig. 67, care being taken that both are clean, as any lack of fit in this step will affect the finished relation of centric occlusion.

6. With the same scrupulous care the upper surface of the check bite and the upper registration plate are cleaned and assembled as in Fig. 69.

7. The upper cast is accurately seated into the upper base plate but

it is not attached to the latter.

These accurate fittings are sufficiently important to be emphasized. There are four fittings between casts and also the seating of the upper part of the Tripod, as pointed out in Fig. 69. All should receive minute attention for on these depend the accuracy of centric occlusion, the most important of all the denture relations.

8. The upper cast is now attached to the Tripod.

9. When the plaster has set, the upper cast, base plate and centric check bite are removed and the Tripod is prepared for its setting of an eccentric relation (left excursion is shown in Fig. 71). For the left excursion the turrets are revolved so that the index mark on the knurl is directly over the letter "L" on each of the turret bases. All struts are loosened in order that they may drop to their lowest position. The guide blocks are arranged in the general directions as shown in Fig. 70, L, for the left excursion and under each should be the strut with the nut lettered "L." For safety to the sharp outline of the check bite, the check bite is placed on the lower registration plate and then the upper registration plate is placed into the check bite and the upper cast into the base plate.

10. The spring clamp shown in Fig. 71 is now applied to hold the check bite firmly in place. The guide block directions are now corrected around the vertical axis until they lie directly under the balls of the upper member of the Tripod. Also it will be noticed in Fig. 71, A that the balls no longer lie at the hinged end of the guide blocks but have moved and at the present are unsupported; indeed, there is no contact whatever between the upper and lower member of the Tripod. The check bite is the only thing that gives relation to the casts. This is an important and dis-

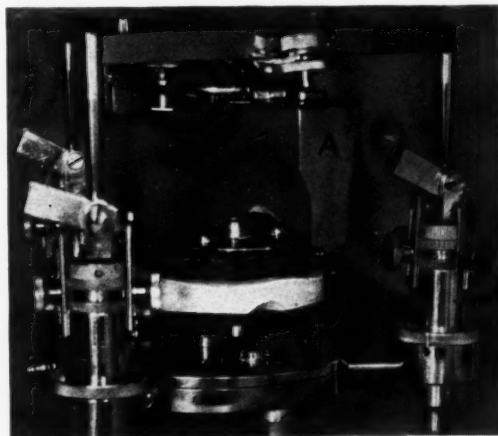


Fig. 66—Note the inclination of the guide blocks to assure definite seating of the upper member.

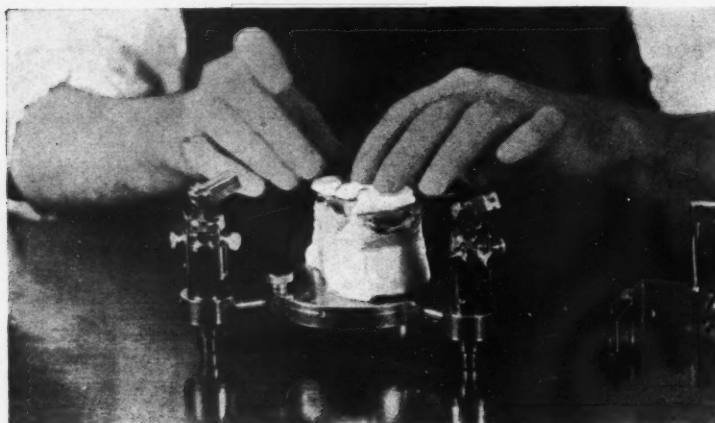


Fig. 67

Fig. 68—Shows the manner of assembly. Extreme care must be taken that each part seats with a perfect fit for on this depends the precision of centric occlusion.



Fig. 68

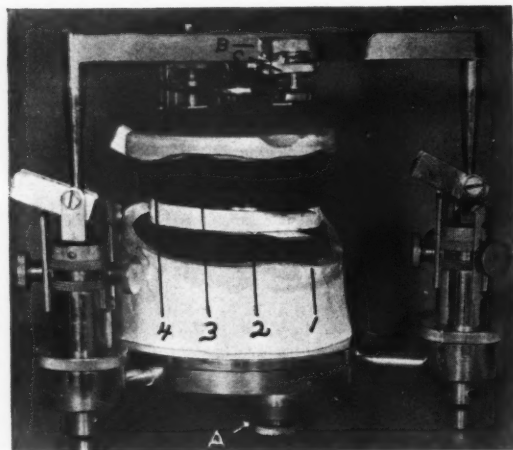


Fig. 69

Fig. 69—Shows the location of the four fittings emphasized in the text, also the centric sleeve A, the graduated nut B, and lock nut C.

Fig. 70—If the guide blocks are set in the directions shown for the various movements before placing the upper cast in the bite plate, the adjustment of the struts will be greatly expedited.

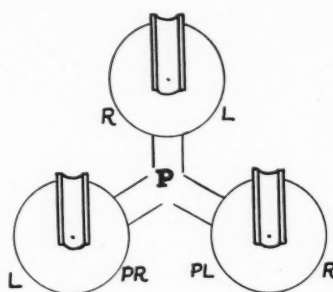
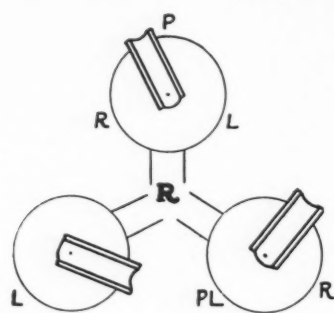


Fig. 70

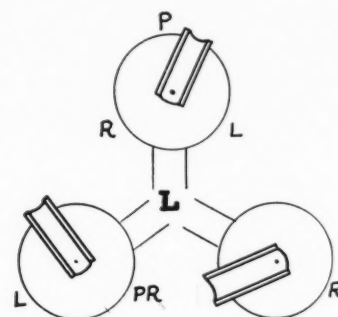




Fig. 71

tinctive feature of the Denture Tripod which is possessed by no articulator of the hinged type.

11. With the tip of the finger on the short end of the guide block to avoid leverage, the block is raised to contact the ball (Fig. 72), and accurately set in this position with the "L" strut. When all three struts are so set, the spring clamp and the check bite are removed. The identical steps are followed for adjusting to right excursion, "R" positions of the turrets and general directions as in R, Fig. 70 and "R" thumb nuts being used. Adjustment of protrusion in a similar manner completes the adjustment of the Tripod. For protrusion

640 Medico-Dental Building.

Fig. 71—Note the space under the ball, as indicated at A. The same condition exists at the other two balls; no part of the tripod interferes nor restricts the placement of the casts as the patient's check bites may indicate.

Fig. 72—Just as the surveyor can from any given point direct this transit in any direction without exception, so can the axis of the guide block always be directed toward the center of the ball wherever it may move from centric relation. The tripod and the transit are made on the same axial principle and each is perfect in its ability to establish and record direction.

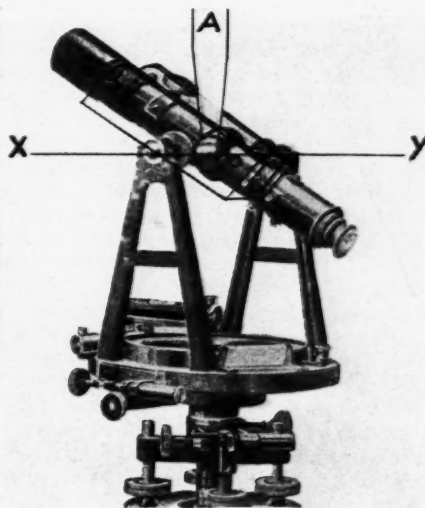


Fig. 72

the "P" positions, directions and struts are utilized.

12. The base plates are now removed and the waxed up dentures, previously tried in the mouth, are put in place.

The rearrangement of these teeth to conform to the centric and eccentric requirements of the tripod, which are, of course, the requirements of the patient, will be the subject of the next installment.

ABOUT OUR CONTRIBUTORS

LOUIS A. HAWKES received his D.D.S. in 1902 from the University of Pennsylvania College of Dental Surgery. Doctor Hawkes is the author of two articles published in *Oral Hygiene*. He is a member of the A.D.A. and the Odontological Society of West Pennsylvania and specializes in prosthesis.

G. THADDEUS GREGORY received his D.D.S. in 1928 from the Indiana University School of Dentistry. Doctor Gregory has been instructor in oral pathology and in the departments of oral surgery and radiodontia since 1928 at his alma mater. He is staff member at the Indiana University Hospitals, Methodist Hospital and St. Vincents Hospital. Doctor Gregory is a member of the A. D. A. and the Indiana-

polis Dental Society, and is engaged in the practice of oral surgery, exodontia, and radiodontia.

GLENN J. PELL, D.D.S. (Indiana University School of Dentistry, 1912) and F.A.C.D., 1931. Doctor Pell was formerly professor of Materia Medica and Therapeutics and superintendent of the clinic and assistant dean at the Indiana University School of Dentistry. At the present time he is associate professor of oral surgery at his alma mater and member of the staff at Indiana University Hospitals, Methodist and St. Vincents Hospitals. Doctor Pell is a member of the A. D. A., Indianapolis Dental Society, the American Society of Oral Surgeons and Exodontists, and the American College of Dentists, and practices oral surgery, ex-

odontia, and radiodontia.

EDWARD J. RYAN, D.D.S., 1921 University of Illinois College of Dentistry; B.S.; 1924, Lewis Institute of Technology; Instructor and Associate in Operative Dentistry and Oral Surgery, University of Illinois, 1921-1928; Former member of the Clinical Staff, Rush Medical College Dispensary and Convalescent Home for Crippled Children, University of Chicago, University Hospital; Editor, *THE DENTAL DIGEST*; member A.D.A.; Treasurer, Chicago Dental Society; general dental practice, 708 Church Street, Evanston, Illinois.

The biography of C. J. Stansbery, D.D.S. appeared in a previous issue of *THE DENTAL DIGEST*.

DENTAL ECONOMICS: THE OLD ORDER AND THE NEW*

EDWARD J. RYAN, B.S., D.D.S.

Evanston, Illinois

IN the late days of November of last year the final report of the Committee on the Costs of Medical Care was released. For a few short weeks the professions of medicine and dentistry teemed with excitement and a widespread criticism of the recommendations of the majority report. Then, at the first of the new year another and even more ambitious commission, the President's Committee on Social Trends, delivered its final report on the sociologic state of the Union. Whereas the Committee on the Costs of Medical Care concerned itself with the adequacy, availability and costs of medical care, the Committee on Social Trends investigated, charted, graphed, and studied in the best research method the whole panorama of American life except, as Henry Pratt Fairchild¹ points out, such matters as the "causes of the present economic depression, various basic aspects of economic change, 'the fateful issues of war and peace,' and the growth of scientific knowledge in general," unemployment, birth control, and eugenics.

These reports, in common with nearly all studies made by the various commissions appointed by Mr. Hoover, are heavy with statistical charts, curves, graphs. To be sure, these several commissions were fact-finding and not program-making groups. We have, then, at our command a stupendous amount of data and facts. Our next move is to build practical programs around this factual material.

If we may risk a socio-economic prediction it would be to say that within the next few years we may expect a translation of these facts and figures into practical terms. So long as "action and action now" is the spirit of the "new deal," we must be willing and prepared to cooperate in social and economic experimentation. For those reactionaries who battle to maintain the *status quo*; for those who fight to defend their vested in-

terests; for those who place property rights ahead of human rights; for all who are tethered to tradition, we predict a sorry day ahead.

In discussing the economic problems of dentistry we must never lose sight of the obvious fact that dental economics is merely a minute subdivision of general economics. There can never be such a subject as dental economics considered separate and apart from general and fundamental economic theory and practice. A three-day or a three-week course in salesmanship, office management, book-keeping, valuable as it may be, is not a course in dental economics any more than a short course in cow-milking, fertilizer-spreading, or fence-building comprises agricultural economics.

We must be courageous enough and realistic enough to see as we approach the subject of dental economics that we, in common with all other members of economic society, must be prepared to make some changes in our organization and mechanism of supplying service to the public. It would be better if we, ourselves, see the need for reorientation, but if we do not others could force it upon us. We must turn the searchlight of realism on our problems even if it hurts.

I come to you pleading no radical cause. I come as a fellow member of the guild, not as some critic from without. I have no panacea for the economic ills of dentistry; no elaborate program of reclamation. I am as fierce in my loyalty to dentistry as anyone, but nevertheless willing to concede some of our weaknesses and short-comings. Under the present organization some of us have received too much for our services and others of us too little; some of the public have received adequate dental care, many of the public have not. It is for us to try to correct these inequalities. In the "New Economic Era" that came to such an ignoble end three years ago we recall the serene contempt that many of our business leaders and economists had for economic laws. In sorrowful retrospect we hear their blatant voices rising, "Two automobiles for every family"; "A radio in every American home"; "The end of poverty and

want has come"; "The requirements of existence have passed beyond the standard of necessity into the region of luxury."

Running parallel to this dizzy period in American economic life, the rapacious so-called new era of prosperity, was a kind of dental economic thinking characterized by high pressure selling, few patients attended, and high fees. This I would call the old order of dental economics. There has arisen, however, since the dark autumn of 1929, in the midst of depression, a new concept of dental economics. This new order of dental economics we earnestly hope will develop and unfold happily with the promised "new deal" in American economic life—to the satisfaction of all.

As I see the situation the new order of dental economics differs from the old order in five respects:

1. The motif of the old order was, How may I *increase* my standard of living? In the new order we ask, How may I *maintain* a decent standard of living?

2. In the old order dental economics implied an interest in the problems of office management and efficiency; in short, a consideration of the *internal* problems of dental economics only. In the new order, we observe the increasing interest in the *external* problems of dental economics; for instance, in health insurance, corporate and contract practice, and socialized dentistry, which in terms of the impact of changes in the social order must inevitably leave their impress upon both the property and the professional welfare of the dentist.

3. The old order was characterized by a spirit of selfish individualism. We believed that some persons could pay us profitable fees. It was our ambition to get the patronage of these persons and to disregard all others. In the new order we conceive of dentistry as a public health measure in which our services must be made available to the masses. This is the awakening of a social consciousness by the profession.

4. In the old order we asked ourselves, How few patients may I care

(continued on page 353)

*Read before the St. Louis Dental Society, November 7, 1932; Ohio State Dental Society, December 6, 1932; Chicago Dental Society (Englewood Branch), January 10, 1933; Cincinnati Dental Society, January 27, 1933; Cleveland Dental Society, May 1, 1933. Revised for publication.

¹Fairchild, H. P.: Trends in a Changing Society, Survey Graphic 22:43 (January) 1933.

Ritter COUNSELOR

VOLUME 1 NO.5

SEPTEMBER 1933



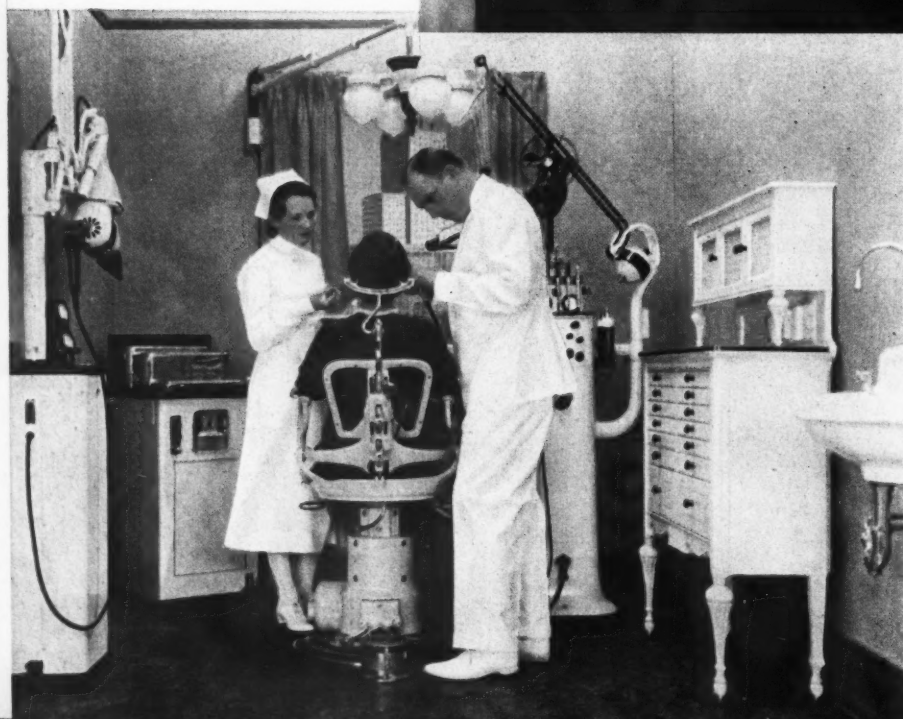
"ARE YOU GOING TO MAKE MY TEETH PRETTY LIKE YOURS, DOCTOR?"



The reception room resembled a comfortably furnished living room, and at one side were a table and chairs and games for the junior patient.

A corner of the reception room . . . "even the hygienist's desk looked like a handsome library piece."

A perfectly equipped operating room . . . "with a gleaming motor chair occupying the place of honor before the window."



Dr. Crane makes sure of his DIVIDENDS!

● "Don't think I'm not grateful for the tip on that stock, Jackson. But I can't afford to follow it," said Dr. Crane to his patient.

Jackson laughed. "Can't afford it? Sure you can! Didn't you ever hear of buying on margin? Easiest thing in the world—and I'm almost positive that this stock is going up twenty points or more in the next few days . . ."

"I don't mean the money. What I mean is I can't afford to spend the time—and I can't afford to take the chance. I had a pretty good object lesson that way, back in '29. A very good friend of mine—chap I went through school with and all that sort of thing—got badly burned then. He got the stock-market fever worse than anybody I've ever seen and spent three-fourths of his time at his broker's office, watching the board.

"His practice went to pot—maybe he'd have two patients a week and maybe not even those. But it didn't seem to matter then because he was riding the crest of the wave. You know, trotting off to Europe and to Florida and that sort of thing. Say, he was rolling in paper profits. Then the bottom dropped out and he lost every cent he had in the world and was deeply in debt besides. They foreclosed on his home, took his furniture and his cars away from him and left him absolutely strapped. Now he and his wife are living with her people and he's got to start at the very bottom again and build up the practice he lost along with everything else.

"Not for me," continued the doctor. "I'd like to make some easy money as well as the next fellow—but whenever I'm tempted I think of the many cases similar to the one just related. It's taken me too long and I've put too much work into this practice of mine to risk losing it on the offchance of making some quick money. *Nope, I'm investing my surplus right here in my own offices. That's the only way I can be sure of getting my dividends.*"

Ritter COUNSELOR

PUBLISHED BI-MONTHLY IN THE INTEREST OF THE DENTAL PROFESSION BY RITTER DENTAL MANUFACTURING CO. INC., ROCHESTER, N. Y.

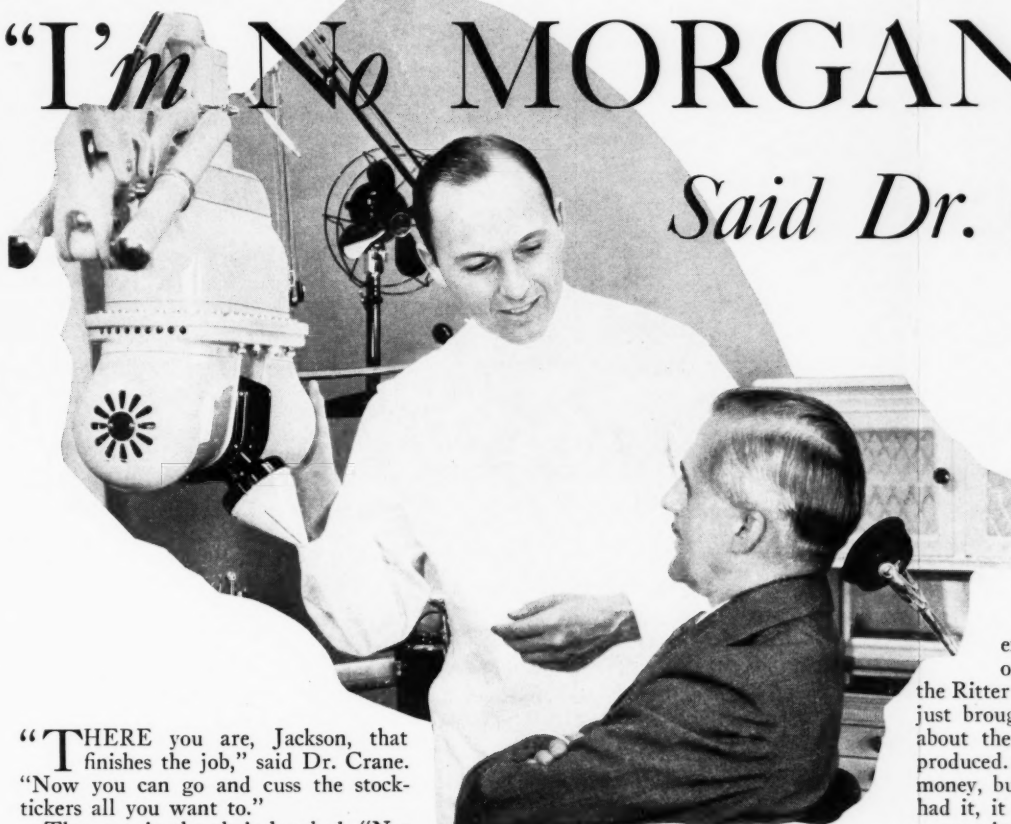
VOLUME 1

September 1933

NUMBER 5

"I'm No MORGAN"

Said Dr. Crane



"See this X-Ray... a new one that Ritter just brought out... it has paid me real money on my investment."

"THERE you are, Jackson, that finishes the job," said Dr. Crane. "Now you can go and cuss the stock-tickers all you want to."

The man in the chair laughed. "Not on your life. It's going too good right now. And say, Doc—you better think over that tip I gave you . . . and buy yourself some—"

"No thanks," interrupted the doctor. "I'm making my investments right here in my own office." He grinned at the other's look of amazement. "Yes, I'm perfectly serious. I *am* making all my investments right in my office—in new equipment, new furniture and in sprucing up the whole place. That's the only investment I know of that's sure to pay dividends and do what you brokers call 'assure my future'."

"I still don't get you. I can't see how you're going to get any income out of buying a lot of new stuff. Looks to me like outgo, not income."

"That's just where you're wrong," said Dr. Crane. "Let me ask you a question. You go to the movies pretty regularly, don't you? And don't you always go to one of the downtown shows or one of the high-class neighborhood houses?"

"Sure. But—"

"Well, couldn't you go to a 10c movie house and see a movie if you just wanted to be amused?"

"I suppose I could, but who wants to go to a place where the ventilation is poor, the sound machine's scratchy and the seats feel like concrete?"

"There you are. You've answered your question about income. You go where you can be comfortable and where the atmosphere and surroundings are as pleasant as possible. That's exactly why I'm improving the appearance of my office and making it as attractive and as inviting and efficient as I possibly can."

"That's why I'm staying out of the stock market. I'm no Morgan, yet I can see where it might be possible to make quite a bit of money in the market at the present time. But it would take mighty shrewd trading and a lot of time which I can't afford to spend in a broker's office watching the board."

The doctor waved his arm about his operating room. "Look. Here's a typical

example. See this X-ray outfit? It's a new one that the Ritter people in Rochester have just brought out and I think it's about the finest that's ever been produced. It cost me quite a lot of money, but in the few weeks I've had it, it has paid me real money on my investment."

"How do you figure that out?" asked Jackson.

"By considerably increasing my practice. You see, almost all my patients have got into the habit of counting the cost of everything and refusing to spend money on dental work or anything else unless they're thoroughly convinced that it's absolutely necessary. That's where my X-ray comes in. It permits me to show them what work is needed, much more convincingly than I ever could before. You know it's humanly impossible for a dentist to discover all the work that's necessary simply by using an explorer and a mouth mirror."

"He can't possibly see beyond the gum line or between teeth. Honestly, I shudder to think of the work I've missed in the past simply because I didn't have an X-ray to help me to diagnose each case completely."

"Do you mean to say you X-ray everybody's mouth as thoroughly as you did mine? Don't the majority balk at the expense?"

(Continued on page 6)

LIGHT

THINK of facing some difficult operative procedure, with dimming vision. Think of the mental anguish of peering desperately at the point of some deep impaction . . . of placing the knife without the sureness that comes with good eyesight.

Even casual contemplation of such a condition brings a wave of fear . . . a sickening sense of dread. Yet that very incident has undoubtedly happened not once but many times. And similar although not so critical revelations of failing eye-health occur every day in the profession of dentistry.

Statistics tells us that only nine in a hundred persons have perfect vision. Faced with so definite a conclusion, how can the dentist, whose eyes are constantly being subjected to the strain of delicate operative work, expect immunity to eye impairment!

Myopia, Hyperopia, Astigmatism are

Ritter Dualite—not only a non-glare operating light but an efficient diagnostic light as well.

the formidable designations for common eye ailments . . . serious enough to cause headache, chronic nervousness and digestive disorders. As they grow more and more acute, they are usually discovered and corrected by glasses. But the most vicious of all eye affections—Glaucoma—is the most insidious. Glaucoma, attacks the anterior half of the eye, the part containing no pain-nerves, and may continue unsuspected for years. Then if the condition is not discovered, Glaucoma causes a progressive loss of vision ending in total incurable blindness.

Naturally, certain class groups are more subject than others to impaired eye-sight, and are more susceptible to chronic afflictions. The manual laborer and the farmer, with little strain on the eyes, need be far less concerned about their vision than the watchmaker and the dentist upon whose eyes rests the measure of their skill.

To preserve the power of sight, nature has given us darkness and light. Darkness to rest the eyes; light to allow them to function.

But light, even daylight, has varying qualities. It may be good, mediocre or poor depending upon its direction and intensity and the hour of the day. Changing light, or dim light forces the eye muscles of accommodation to exert themselves to attain a balance of vision. This inflicts tremendous eye-strain, slowly but surely breaks down eye-strength and invites development of dangerous eye-conditions.

Even with the most effective possible illumination, the intense concentration necessary in dental work cannot help but be trying to the eyes . . .

That is why the dentist who values his eye-sight must make adequate provision for efficient artificial illumination to compensate for the variation in light as the sun shifts from East to West . . . on cloudy and rainy days . . . and for those hours of the shortening days of daylight over the fall and winter months when most dentists are the busiest.

To aid the dentist in achieving the most effective, balanced illumination for every phase of his work, Ritter has spent years in exhaustive research and thousands of dollars in experimental design and testing.

The Ritter Four-Cluster Light and Dualite are the result. Together they provide the most efficient lighting method available to the profession today.

The Ritter Four-Cluster Light brings to the operating room an amazingly close approximation of the soft even rays of natural north light. Its clear, concentrated, shadowless illumination is made possible by the use of four individual holophane globes, prismatically cut, with the points equidistant from each other.

Due to this design, the direct light rays are broken up by the prismatic facets of the globe, resulting in a powerful but glareless glow of illumination from each of the four globes. A conveniently located switch makes it possible to vary the intensity of the light by the number of bulbs lighted, according to the needs of the moment.

Through a new cluster design, the entire lamp assembly can be rotated almost completely and also can be tilted to an angle of approximately thirty degrees, permitting accurate focusing of all



Ritter

LIGHT

...for your eye's sake!



Together, the Ritter Four-Cluster Light and the Dualite provide the most efficient lighting available to the profession today.

useful light rays. The entire cluster assembly is suspended at the end of a perfectly compensated bracket. The Four-Cluster Light may rightly be regarded as an important aid to eyesight and as a wise safeguard against the menace of impaired vision.

In addition to general illumination, however, most dentists now regard "concentrated" or "focused" light essential in operative work.

Ritter recognized the need for this type of light—but also realized that it had one great fault: the strong light beam was harsh and caused glare that taxed the eyes of both the dentist and the patient.

It was in seeking a way to produce a spotlight in which this glare was subdued or totally abolished that Ritter engineers evolved the Dualite, contributing to dental progress not merely a

non-glare operating light, but a diagnostic light as well . . . the first *combination* intra-oral and diagnostic light to be offered to the dental profession.

Unlike a spotlight which projects within a small circle, the Dualite diffuses its non-glaring rays over an effective area of 18", and provides lesser but nevertheless useful light over a wider area.

Although its special daylight lenses produce light of great intensity, complete elimination of glare is made possible by the visor or shield. This visor is adjustable to every angle, concentrates the light in the oral cavity and shields the eyes of patient and operator.

Not only does the visor eliminate glare, but it also provides a holder for all types of X-ray films, permits close-up X-ray study while operating and makes separate, cumbersome devices obsolete for reading radiographs. Using the Dualite for radiographic study, the dentist need never move from an operating position. His work is surer. And with the X-ray films in full view, his patients have greater confidence in his thoroughness and skill.

In fact, from whatever standpoint you consider it, the Dualite eclipses any spot-type lighting heretofore available. Regardless of the angle or direction in which light is needed, the Dualite provides it at the touch of a finger.

Special ventilation dissipates heat so that the light can always be handled with comfort. There is no exposed wiring.

*Ritter Four Cluster Light
... approximates the soft,
even rays of natural north
light.*

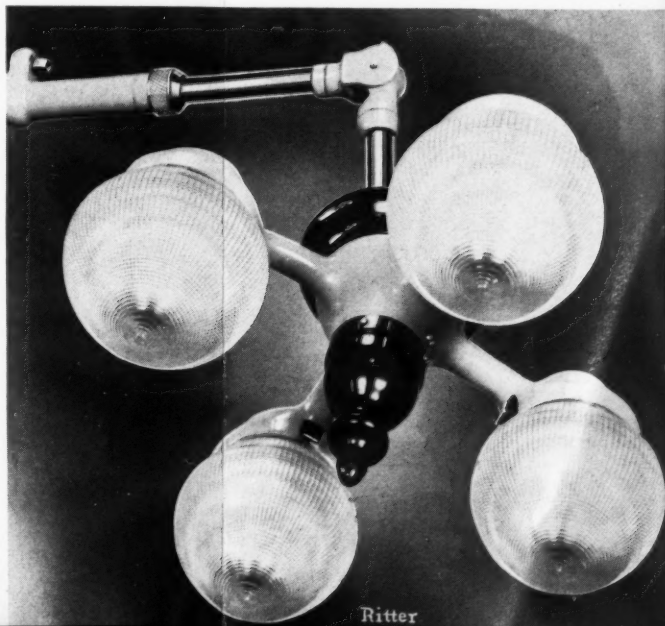
Despite its double-duty service, the Dualite costs no more than the usual spot-light. It contributes to speed, efficiency and better work and will save your eyes from undue strain. Its handsome black crackle-enamel finish and chrome trim make it an attractive addition to any operating room.

But of all its virtues, the greatest is its ability to provide powerful intra-oral illumination without blinding glare in patient's or dentist's eyes.

With the Dualite used in conjunction with the Ritter Four-Cluster Light, the dentist is provided with all the light he needs for either daytime or night time work under any condition, and for practically every type of operation. Together, they bring you the latest scientific developments in the lighting of dental operating rooms.

For the sake of *your* eyes, and in behalf of efficiency send, now, for complete literature on the Ritter Four-Cluster and the Dualite!

The length of a dental practice is many times measured by the way in which the dentist has protected that one most important of his senses—*his eyesight*.



Ritter

LET *Spic* AND *Slic* KEEP YOUR EQUIPMENT LIKE NEW in Appearance and Efficiency



Clean and polish with Spic!

ESPECIALLY designed for use in dental offices, Spic and Slic—Ritter Polish and Ritter Oil—make it easy to keep your equipment looking like new and in splendid working condition.

Beautiful equipment and furniture should not be allowed to get dingy and dull-looking. As soon as it loses its well-cared for appearance, it becomes less valuable to you. It becomes a liability and not an asset in creating patient-approval. Above all, the beautifully designed, precision-built apparatus which plays so important a part in your success should not be neglected. That's why we urge the protection of the investment you have made in furniture and equipment with Slic and Spic.

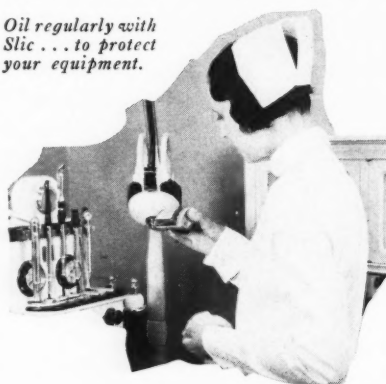
Spic both cleans and polishes at the same time. It removes all fingermarks and film and imparts a high gloss to any wood or metal surface. Unlike many polishes, Spic contains no harsh abrasives which will eventually deaden the original luster and make your furniture and equipment look dull and unsightly. A few drops of Spic on a dry cloth, a few minutes' time each day—and your furniture and equipment will continue to look like new.

Slic was developed by Ritter engineers to meet the requirements of dentists for a reliable lubricant . . . one that would contain no substances to clog and otherwise impair the efficiency of dental engines, lathes and other high speed equipment. Slic is a specially refined mineral base oil delicately perfumed and extremely fine, yet with

plenty of body to insure adequate lubrication. It prevents rust and will not gum under any circumstances. To apply a few drops of Slic at regular intervals will guarantee that your equipment will be constantly in the finest condition and will give you the maximum of efficiency in service. And incidentally, by providing you with perfect lubrication and protection for delicate instruments and machines, Slic will save you many costly repair bills.

A combination introductory package of Slic and Spic with two Ritter No. 10 belts, and two polishing cloths is now being offered dentists through Ritter dealers at the special low price of \$1.95

Oil regularly with Slic . . . to protect your equipment.



for the regular \$2.45 value. *This offer is good only until October 15 and will not be duplicated after that time.* Phone your Ritter Dealer or mail him an order today. Take advantage of this opportunity to put Slic and Spic in your supply cabinet without further delay.

This special introductory package . . . Spic, Slic, Belts and polishing cloths . . . \$1.95! Offer good only until Oct. 15.



(Continued from page 3)

"But there isn't any expense, comparatively, when you consider what timely discovery means in dentistry," smiled the doctor. "It's absorbed many times over by stopping disease at its start. I never would have found that interproximal cavity in your case if I hadn't taken complete X-rays of your mouth. That's why I can afford to X-ray every patient who comes into my office—and why I'm systematically calling in all my patients for X-ray examination. They appreciate the interest I take in their dental health and they're only too glad to know exactly what condition their teeth are in and what steps are necessary to check any diseased condition at the very start.

"This is new, too," said the doctor, patting the head rest of the gleaming chair which occupied the place of honor in front of the window. "My other chair was all right . . . but it wasn't modern. My motor chair is, and affords me greater operative range and greater comfort for my patients as well as myself. And look here, I have all my instruments right at hand. I don't have to waste a second."

Dr. Crane crossed his operating room and opened the door leading to the reception room. It might have been a comfortably furnished living room that met their eyes. A davenport, several easy chairs and a library table were arranged with none of the stiffness usually associated with professional reception rooms. The walls had been painted a cheerful, light tan; several prints made pleasing spots of color on the walls and even the hygienist's desk looked like a handsome library piece. "Yes," Dr. Crane's patient said, "I admired this room when I came in. You've had it done over since the last time I was here. But boy, it must have set you back plenty. Why, this furniture alone must have cost you—let me see—"

"You're wrong there," the doctor interrupted. "Furniture has never been as cheap as it is today. Good furniture, I mean, but there's every indication that prices are going up considerably. Actually, this reception room is the smallest part of my investment, but it's far from being the least important. It creates the sort of atmosphere I want in which to greet my patients. It puts them in a pleasant frame of mind. Bids them welcome so to speak—and does a lot to overcome at least part of the old dislike so many people have for dentists' offices. But come along now, I want to show you the part of my 'investment' I'm extremely proud of and which I expect to pay me the biggest return." He led the way into a smaller room next to his main operating room.

"Six weeks ago this was just waste space. Now it's my children's department and I expect to make it the most profitable part of my whole practice. The way I figure it, the children of today are the grown-ups of tomorrow and

the more child patients I can develop now, the better-assured my practice is going to be in years to come. It's interesting, working with children, too. Keeps your view-point fresh. And honestly, I get a kick out of starting their dental education and awakening their minds to the important part dentistry plays in keeping them happy, healthy and improving their general health. I tell you, the children's field is a mighty important one to every dentist and for years I neglected it.

"That's why I took more trouble in planning and carrying out my children's



The children's operating room should be designed to attract junior business.

room than almost any other part of my professional offices. First impressions are probably more important here than in any other part of my practice—and you can be sure that I'm not overlooking any possible way of making these first impressions as pleasant as possible. I've been thinking very seriously about adding a special children's reception room instead of using that corner of my large office. Then I'd furnish the whole room with this new child-sized furniture, with toys and games and all the things that youngsters enjoy."

Dr. Crane led the way back into his reception room. "Across there," he said, pointing to a door in the opposite wall, "is my X-ray developing room, and over there, my laboratory. The average patient doesn't come in contact with these departments, but I've gone to just as much trouble fixing them up as I have the more open offices. Frankly, I don't believe there is a more completely equipped or better arranged small labor-

atory in the city. My colleagues call it 'the model laboratory.' And you can be sure that my work is done and a lot quicker now that I have modern equipment to do it with, and with greater personal satisfaction—"

"I'm glad you've showed it all to me, doctor. You've certainly got a wonderful layout here."

"Yes, but it's 'only the beginnin' as Captain Henry says. Some of these days I'm going to build me a bungalow office."

"A bungalow office? Where, for the love of mike?"

"Right out in the residential district. The way I've got things doped out, most of my practice comes from the suburbs—so why shouldn't I be right on the spot? Save my own patients the trouble of coming down town—give them better parking facilities and make it easy for all children to come to me regardless of age . . . now most of my kiddie patients that need dental care must be accompanied by their parents."

"Sounds logical Doctor, but won't it cost you a lot more than your offices here? I mean you'd have to build the bungalow, have it all dolled up and pay for the upkeep—say, I think you're making a big mistake!"

"That's everybody's first impression but I've gone into the thing thoroughly and I've found out that it will actually cost me less to have a bungalow of my own than to keep on paying rent for these offices, or any offices in a halfway decent location for that matter. I've had it in mind for a long time. The way I look at it is this: If I can start building reasonably soon, I'll be able to pick up the right lot pretty reasonably . . . then at the end of a few years I'll own my bungalow outright—and I'll

have a piece of property that will increase in value as time goes on. I'm dickering with a real estate agent right now. The deal ought to be closed in a few days and then I'll go right ahead with my plans."

"Yes, but what about all this equipment and furniture you've just bought?" asked Jackson.

"I'll use every bit of it. With the kind of office I have in mind, I doubt whether I'll have to spend an extra hundred dollars in either new equipment or furniture. You see I've anticipated that. I'm buying these things—the best I can get—and will soon have all this clear—then I can go full speed ahead on my other plan."

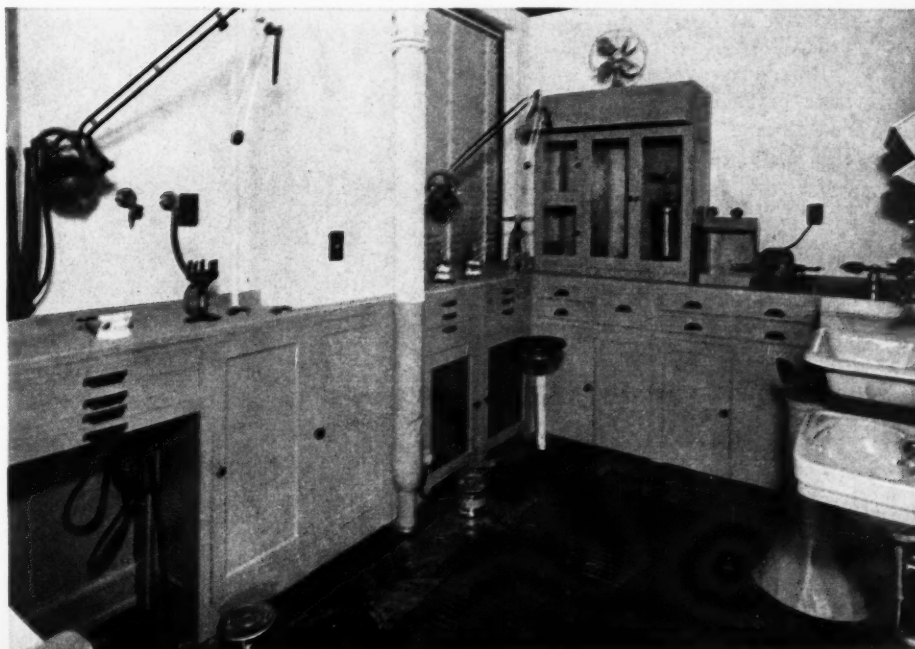
"Well, you know more about it than I do. And maybe you're right, at that. You've certainly shown me why you're making your investment right here. I never realized before why coming to your office was not like a 'trip to the dentist's'—and why I've been so confident that you were going to do a good job every step of the way."

"I've always thought that putting up a good front was half the battle," said Dr. Crane. "And now that I see my patients' reactions to my new offices, I'm convinced that it really is. What's even more important is the fact that it gives me increased confidence in myself."

* * * * *

Dr. Crane is right. Expressing outward evidence of your love for and belief in what you are doing is half of the battle. With it, you inspire confidence in your patients. You make them willing to return to your office when you call them back for examination and treatment. The psychology is right—the benefits are bound to follow.

A model laboratory...arranged and equipped for the utmost efficiency.



THERE'S WORK TO BE DONE

let X•RAY find it for you!

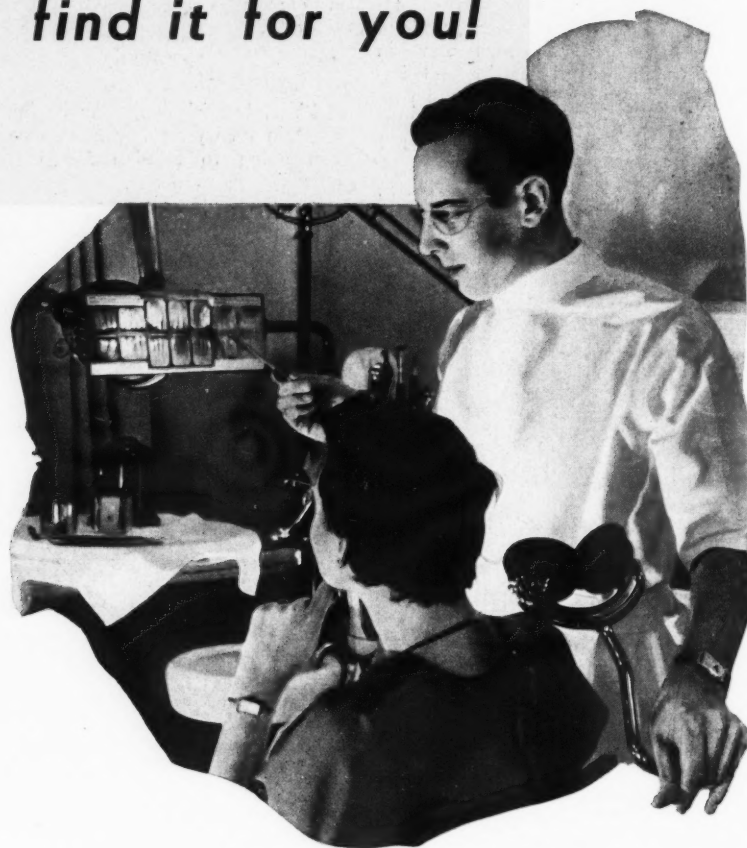
All over the country progressive dentists are building up their practices by including a thorough X-ray diagnosis as part of their routine procedure.

They have discovered that there is no more effective means of forcibly demonstrating to their patients the necessity for dental work than by actually showing them the hidden conditions which make that work necessary.

Although they make no separate charge for X-ray, they find such procedure decidedly profitable. Here is how one dentist puts it: "If I had not received a single fee for an X-ray during this time, the instrument has located enough additional dentistry to pay for itself many times over—the actual X-ray fees being additional dividends."

Ritter makes the use of X-ray not only more profitable but more effective. The new Ritter Model "B" X-Ray brings new elements of convenience, ease of operation and safety to X-ray operation. The complete X-Ray Unit is suspended at the end of an extension bracket, with both the high tension coils and X-ray tube within the two chambers of the compact head, and so perfectly balanced is the entire assembly that the bracket can be extended and the head positioned with the touch of a finger. Once in position it remains there—absolutely firm and vibrationless.

The high tension transformer of the Ritter Model "B" X-Ray is oil-immersed under vacuum, impregably insulated to pre-

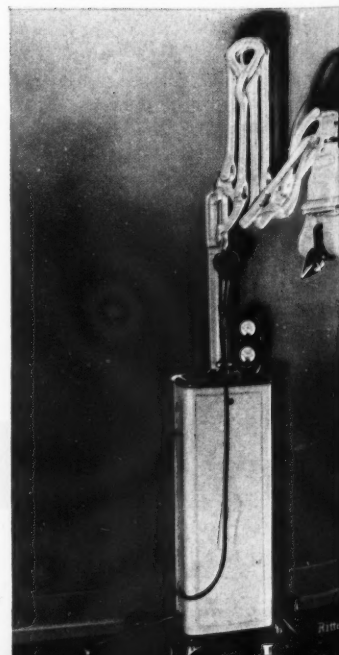


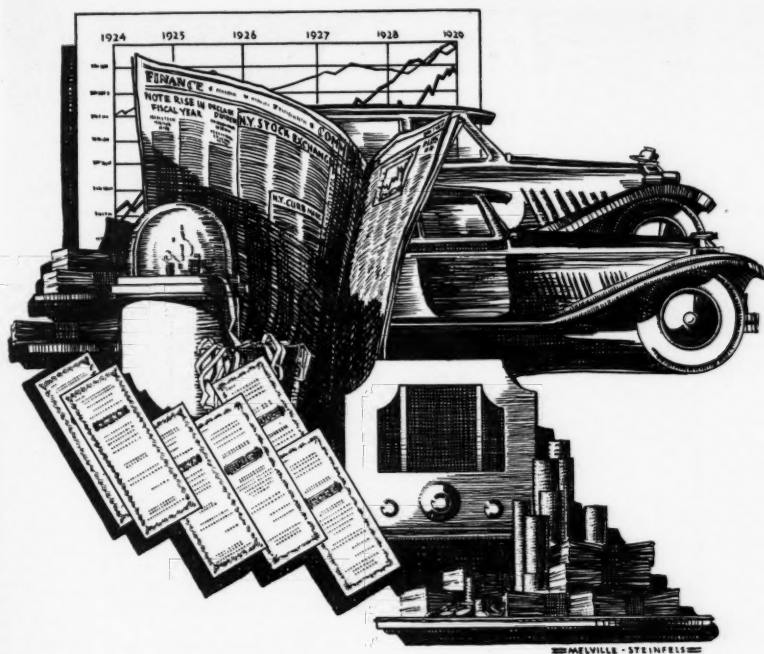
vent the escape of even the slightest current to the body of the head. The tube, in a separate compartment, is thoroughly shielded to protect both the patient and the operator from harmful secondary rays—any part of the entire assembly can be safely handled by the dentist during the exposure period.

Take time, *now*, to investigate the profit potentialities presented by a Ritter Model "B" X-Ray in your own operatory. Let us send you complete, newly prepared literature without delay.



THE NEW **Ritter** X - RAY





"The New Era of Prosperity"—the Civilization of Things and Crass Commercialism.

(continued from page 344)

for, each paying a *large* fee, to have a profitable practice? In the new order we are asking, How many patients may I see, each paying a *small* fee, to have a profitable practice?

5. In the old order we emphasized the profitable practice of expensive restorative dentistry. In the new order we will emphasize the economic advantage to ourselves and to the public in the practice of preventive dentistry.

Taking these five points of difference that distinguish the old order from the new, let us break them down and discuss each one separately:

In the first instance, in the old order the urge was to *increase* our standard of living. In the new order the struggle is to *maintain* a standard. The implication in this attitude is significant. It means, in short, that dentists in common with all members of economic society are at present in the thick of a defensive battle. If we are able to protect the gains that we have made we should feel that we are eminently successful. This spirit is in no sense that of the defeatist but rather of the shrewd strategist who knows when the time has come to throw up his bulwarks and prepare himself to withstand the siege.

These remarks, to be sure, are statements that are perfectly obvious and commonplace. There is a remark, though, that I would like to make that is not quite so obvious: In a time of economic transition, when men are restless for they know not

what, conditions are favorable for the demagogue or the economic charlatan. He may be either the traditioned conservative or the ambitious liberal. Those who believe in no change at all may be just as demagogic as those who believe in the sudden overthrow of existing conditions. These charlatans may appear at any level or in any group of economic society. They may appear in dentistry, and it is for us to recognize them. How, then, may they look, and what may they preach? This takes us to the second point in our five-pointed discussion.

INTERNAL PROBLEMS VERSUS EXTERNAL PROBLEMS

In the old order of dental economics our major interest was in the problems of office management and efficiency, or in the internal problems of dental economics. We conceived of dental economics as being concerned with efficiency in office procedures exclusively. In the new order we recognize that of more importance than a particular kind of bookkeeping system or a sales talk to the prospective patient are the dental economic problems that lie outside the dental office. In unemployment, low wages, health insurance, group practice, dental clinics, for instance, we have some of the external dental economic problems. It was well enough in the gay days before the autumn of 1929, when people had and were spending

money freely, to tell dentists that dental economics comprised the suave selling of services to individual patients and the proper use of some special bookkeeping system. But today we know better. We know that no matter how compelling our "sales talk," no matter how elaborate our bookkeeping system, we are confronted with the fact that our dental services are hard for us to sell and for the public to buy. Our services are hard to sell since in a civilization of "things," too many so-called trifles are placed ahead of dental care.

This misconception of the scope of dental economics is well stated in the report of the Committee on Dental Economics of the American Dental Association: "It is regrettable but true that to the average practitioner dental economics, even though it does mean more than crass commercialism, still stands for something that deals with the conduct of the individual dental office. The social economic aspect of dental economics is to the rank and file of the profession *terra incognita*."²

We have already mentioned the demagogue or the charlatan in the new order whom we should fear. Because in this new order the problems are greater and the scope of economic activities so much wider the opportunities for economic quackery and brilliant panaceas are so much greater. It is a notable fact that the greater the political and economic problems the more anxious and ready are men to claim they have found cures. The man who has neither the vision nor the business acumen to run a corner grocery store successfully is quick to suggest a remedy for agriculture or a sure method to overcome unemployment. Incidentally, we may look to the case book of medical quackery for a perfect analogy. Many more quacks have risen with glowing claims asserting that they have found the cure for cancer and tuberculosis than those that have come bearing the tidings that they have discovered the cause of dental caries or the common cold. The spectacular and the profound problems offer the fertile field for demagoguery and charlatanry.

Because the stakes are larger and the problems greater in this new order of dental economics we may expect shrewder and sharper minds to be attracted to the scene. For that reason let us be warned and be on guard. We should prepare ourselves as a profession to examine carefully and scien-

²Report of Committee on Dental Economics of the American Dental Association (Doctor James A. Brady, Philadelphia, Chairman); in the files of the Committee on Dental Economics, Chicago Dental Society.

tifically the claims of all those who come before us pleading the case for or against health insurance, contract practice, part-pay clinics, and the other external problems of dental economics.

INDIVIDUALISM VERSUS COLLECTIVISM

It would be neither fair nor accurate to say in the discussion of this third point that in the old order of dental economics no attention was given to the health significance of dentistry nor to the social responsibilities therein implied. For half a century at least men in the profession have been preaching the health value of dentistry and have been active in projects to make our services available to all levels in the population. The splendid work that has been done in school, charity, and industrial clinics is a tribute to these men. But by the public at large dentistry has been considered as part luxury, part a necessary evil, and a small part, a health activity. For that reason the relationship between the dentist and his patient has been one of a private and personal nature and not of interest to society in general. The spirit of individualism that prompted the patient to seek the dentist and the dentist to be concerned with only those who could pay his fees characterized the old order. Neither the public generally nor the profession was particularly concerned about those who could not pay for dental services. In an age of individualism these dental unfortunate ones were asked to propel their own canoes, whether they had paddles or not.

In the new order of economic society, however, we observe that the enlightened and influential public is becoming very much concerned about the adequacy and the costs of all types of medical care. Social workers, politicians, insurance companies, industrialists, and the medical and dental professions—all are showing grave interest in the health and physical welfare of the public. This is the spirit of collectivism when the question of health is no longer of individual concern alone but is of interest to society as a whole.

We have sold the public a package of goods and now it looks as though we can't or are unwilling to deliver. We can sit tight and do nothing, which for the present is the easiest course, and later have something distasteful jammed down our throats by politicians or insurance companies selling health insurance; or, we can use some leadership and ingenuity

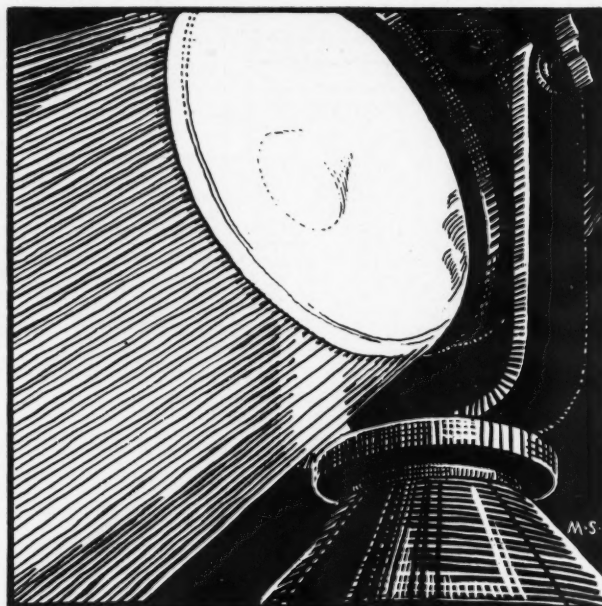
and approach these problems with intelligence. In passing, it is well to remember that there are now in operation 1500 dental clinics in the United States. At the outset, however, we should hang all our preconceptions and prejudices in the cloak room and approach these problems with a dispassionate, scientific detachment that the Committee on the Study of Dental Practice of the American Dental Association so ably represented. Furthermore, we should disentangle ourselves from the idea that the reason more people do not purchase the services of dentists is because they are not educated to the value of dentistry. The simple reason is that many persons under the present economic system cannot afford dentistry. Many persons, to be sure, cannot afford dentistry because the impact of the institutional pattern has made them prefer other things to the service of dentistry. Prince's statement of the case is splendid:

I hope that at least some of you will agree with me that the real reason why the dental profession is faced today with the necessity of providing a more adequate and economical plan of distribution of its services is because the great mass of people who today are complaining that they are unable to afford satisfactory dental service at the present fees, are likewise suffering from the lack of an adequate distribution of wealth, sufficient to enable them to have much more than the bare necessities of life, and their meager in-

comes cannot be stretched far enough to sufficiently take in their dental requirements.³

If we will refer to the publications of the Committee on the Study of Dental Practice,⁴ we will recall that in 1929, a peak year in national prosperity, twenty-four million persons, or 20 per cent of the total population of the United States, spent on the average of \$18 a year for dental care. We learn also that in the same year, 1929, two million persons additional were served in dental clinics; that is, for every twelve persons being served in private practice, one was receiving care in a dental clinic.

In the St. Louis Study,⁵ we note that of the 357,256 families in the metropolitan area of this city, 25 per cent or 89,486 families receive incomes above \$2500 annually. If I understand the findings of the Committee on Public Dental Education of the St. Louis Dental Society correctly, this 25 per cent of the population are considered to be persons who can pay for dental services in private practice. The other 75 per cent of the population according to the St. Louis Study, and this group



The scientific searchlight of realism must be turned on the economic problems in substitution for the rubbing of the mythical Aladdin's Lamp. "We should prepare ourselves as a profession to examine carefully and scientifically the claims of all those who come before us pleading the case for or against health insurance, contract practice, part-pay clinics, and the other external problems of dental economics."

³Prince, M. W.: A Cooperative Plan of Dental Health Service Distribution, Michigan State Dent. Soc. Bul. 14:18 (April) 1932.

⁴Leven, Maurice; and Beck, Dorothy F.: The Practice of Dentistry and the Incomes of Dentists in Twenty States: 1929, University of Chicago (February) 1932.

⁵Plan for Public Dental Education as submitted by the Committee on Public Dental Education of the St. Louis Dental Society: A Chart.

constitutes all families below the \$2500 level, are to receive services through "clinics or organized practice." Now if we may carry figures in another direction, we find that there is an intimate relationship that exists between the income and the demand for dental care. In short, those persons at one extreme of the economic scale who are in the danger zone of bare sustenance spend little for dental care; whereas at the other end of the scale, those fortunate ones spend large sums for dental care.

Eliot,⁶ in an address before the Chicago Dental Society, said:

The larger the family, the less the per capita expense laid out (for medical care). Among 3,281 industrial policy holders of the Metropolitan Life Insurance Company, it was found that families of two spend \$41.24 per capita (total \$82.48) while families of eight paid \$10.44 per capita (total \$83.52); practically the same aggregate amount being divided between two or eight people respectively—or being partly spread by charity. Families of nine or more paid \$13.28 per year for medical care. The alternative resorts, then, are charity, clinics, patent drugs, neglect. Doctors charge less for larger families—but should they bear all the burden of charity? Of these Metropolitan families 82 per cent had a doctor; the average outlay for medical care was \$140 of which physicians received 43 per cent, dentists 7.9 per cent; but one-fifth paid for 64 per cent of the medical costs, and those who had dental care averaged \$18 apiece.

If these facts, which were accumulated from three separate and independent studies mean anything, it would seem to indicate that the *demand for dental services equals the ability to pay*. Davis⁷ states this case thus: "Expenditures for medical care increase in proportion with their (the patients') income, indicating that the readiness of people to pay increases along with their ability."

The fallacy of any so-called dental educational publicity program is that by such methods we might stimulate a demand but it would be meaningless because the potential buyer had no money to spend for the services. Eliot⁸ says: "'Effective demand' is not mere need nor mere desire nor mere ability to pay. It is desire *plus* purchasing power." It is quite conceivable to me that such a condition of desire without money might produce a restlessness among the dental underprivileged which would drive us headlong into the undesirable forms of dental practice that we are striving to avoid. Then when we add the cost of advertising to the ultimate

consumer, who is in this case the dental patient, we have increased the cost of dental care and put it out of the reach of the person whom we are trying to educate.

We have this situation, then: Somewhere between 20 and 25 per cent of the population can or at least could in 1929 afford and were willing to purchase dental services. The remaining 75 or 80 per cent of the population have not the money to pay for these dental services but nevertheless are entitled to receive the health benefits of dentistry. What are we going to do for them and what will happen to us as a profession?

There are several courses open to us: We might handle all these cases as pure charity, which is entirely unfeasible and uneconomic. We might handle them in private practice as part charity and part pay, which is likewise unsound. Bureaucracy might enter the picture and dental care for the economic underprivileged might be borne by the state. The advantage of such a system is that the cost would not be borne by us as an economic group or as individuals, but would be spread throughout the entire tax-paying unit. The one serious disadvantage of *bureaucracy*, and *political domination* is enough to rule out this method. Swanish's⁹ clear statement of the case is this:

By definition of a profession, dentistry is committed to treatment of whatever class is in need of it. Dental care of the poor is a responsibility of professional dentistry rather than professional politics. The incidence of such care, however, should by no means be shouldered by dentists alone any more than the cost of feeding under-nourished school children should be borne by school teachers, or the burden of housing by architects. Dentists are no more responsible for the familiar fact that the economic system as it is allowed to work at present does not provide a decent standard of living for the population as a whole than are physicians, engineers, or any other professional group. On the other hand, it is altogether probable that the cause of this condition can be traced to the fact that when it comes to a consideration of ailments affecting the body politic even the man on the street regards himself competent to write the prescription for the economic ills from which our complex order of society suffers. As a practical matter, therefore, there is a strong presumption that the most effective prescription for the preservation of health as it is affected by stomatologic conditions can and should be written by dentists rather than by politicians.

Another method is health insurance. Because dental services, unlike general medical services are largely predictable, "inevitable, estimatable, or reasonably soon,"¹⁰ and therefore

subject to accurate actuarial practices, this plan is economically sound. The danger here, of course, is the domination of the profession by insurance companies to the economic and professional disadvantage of the profession.

Finally, there is the method which is a combination of health insurance and group practice wherein the profession itself undertakes the service and controls the machinery of distribution. In this case dentists might group together to sell their unused time to a dental health insurance organization, owned and controlled by the profession to care for the underprivileged. This plan has these advantages:

1. The dental health insurance organization is owned and controlled by the profession.

2. Dentists could be engaged in private practice part of the time and sell their unproductive time to the insurance organization.

3. The approximate 45 per cent commission that the health insurance companies take for overhead and profits could go for the scientific advancement of the profession.

This is in skeleton the outline of the Milwaukee County Medical Society and the California Medical Association Plan.¹¹ Doctor John H. Graves, President of the State Board of Public Health of California, commenting on this plan says:

At the outset profits that would go to agencies, insurance companies, promoters, etc., are abolished. The medical profession through such committee units as desired will offer professional service to the people whose income for the past year is below a certain fixed sum, provided ascertainable assets are below fixed amounts . . . Such a plan preserves inviolate the relation of physician and patient and distributes the costs of illness as easily as any insurance system. It is claimed by those who have been interested in the problem that this is the first logical solution of the question of how to place in the hands of those of moderate circumstances an easy and practical method of securing all the advantages of modern scientific medicine and surgical aid for themselves and their dependents at a cost so reasonable that it can be secured without financial hardship.

Now as a final comment and as a word of warning I should like to stress several points:

1. There is a danger in our zeal to do something for the underprivileged that we will create a group of special privilege at the lower end of the economic scale. Only to the indigent should we offer charity. Everyone else must pay something. If as an emergency measure in a time of de-

⁶Eliot, T. D.: Trends in Health Care in Relation to Social-Economic Conditions, Bul. Chicago Dent. Soc. 12:14-26 (July 28) 1932; *ibid.* 12:15-22 (Aug. 4) 1932.

⁷Davis, M. M.: Paying Your Sickness Bills, University of Chicago Press, 1931, p. 23.

⁸Footnote 6, p. 18.

⁹Swanish, P. T.: The Practical Side of the Study on Dental Practice, THE DENTAL DIGEST 38:105 (March) 1932.

¹⁰Eliot: Footnote 6, p. 23.

¹¹Phillips, H. E.: Personal communication to the author.

pression we give promiscuous medical care to the nonindigent, there is the danger of establishing a precedent so that when economic conditions improve these same persons will consider free care their right and will not be willing to return to a pay system for the distribution of medical care.

2. We should make sure in our own plans to care for the 75 or 80 per cent who do not, and many cannot, buy dentistry that we do not degrade all levels of dental services. Cheapening dentistry to make it available to the masses could abort our entire scientific and technical progress.

3. These external problems of corporate practice, health insurance, and socialized dentistry are very much upon us and are not dark shadows in a nightmare.

4. Finally, if we are to keep ourselves intelligently informed of the trends of economics that are of vital concern to us, we should have an alert, vital, fact-gathering bureau of dental economics in the American Dental Association, such as the similar bureau in the American Medical Association.

LARGE FEES (RESTORATIVE DENTISTRY) VERSUS SMALL FEES (PREVENTIVE DENTISTRY)

The fourth and fifth points under discussion are so closely overlapping that they may be discussed together.

The old order of dental economics stressed the importance of seeing few patients, doing as much restorative dentistry as possible for each, and charging all the traffic might bear. If we refer again to the Studies of the Committee on the Study of Dental Practice, we notice that the average annual amount spent per person served was \$18. This means, of course, that for the many persons who spend large sums for dental care many spend much less than \$18.

With our emphasis in the old order on large restorative dentistry we often tacitly discouraged expenditures for simple dentistry. The two and three dollar fees for certain types of children's dentistry, for simple extractions, pit and fissure restorations—these we often overlooked and sometimes directly discouraged. In the days of "bull" markets and wild speculation we were looking for big profits only. The result has been that the public has developed a dental fear not alone of the actual physical experience but of the cost of dental care. Furthermore, by our implied or direct discouragement of inexpensive dentistry, we obstructed the free flow of patients to our offices. Now in this period of depression we are reaping the poor harvest of an indifference in the boom days. People are staying away from our offices now because they have come to consider the cost of dental care as synonymous with large expenditures. Incidentally, the dentists who restricted their practices in good times to few patients and high fees are in a much more precarious economic position today than the men who did the simple, low-fee services for many patients.

Because this is a discussion on the economic aspects of dentistry, I do not believe that it is within the scope of this paper to present the operative advantages that are possible by seeing few patients each day. I should like to make it plain, however, that when I suggest seeing many patients and doing simple things I do not imply the mass-production, inaccurate methods of our unethical colleagues.

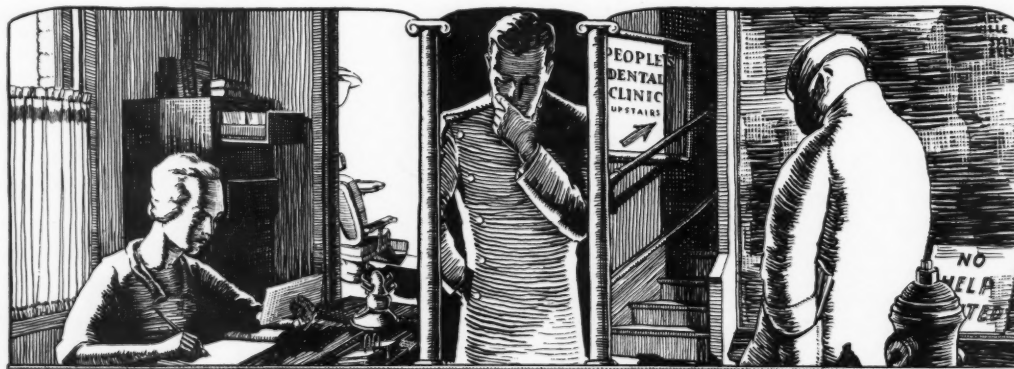
Preventive dental service has an important economic aspect.¹² The profession has been slow to grasp the economic self-profit of a program of prevention; the public has not been

impressed with the economic advantages of preventive dental service. The economic improvement of dentists should follow whenever they escape from the tether of the vicious triumvirate: materials, merchandise, and mechanics, and begin to place the emphasis on health, biologic processes, and prevention. And of this there can be no doubt: the public likewise will profit when the dental profession becomes biologic and prevention minded.

Like all sound economics, the practice of preventive dentistry is mutually profitable; the patient preserves his denture and the dentist increases his income. Over and beyond the biologic preservation of the human denture, the patient enjoys a three-fold profit from preventive measures: he avoids the inconvenience and the drain on efficiency that comes from dental pain and infection; he conserves his time by not being required to spend long hours in dental treatment, and he saves large sums of money by coming frequently for prophylaxis and the treatment of incipient disease conditions rather than waiting until expensive and extensive restorative dentistry is demanded. The dentist who practices preventive dentistry is assured of a steady and larger flow of income by the frequent return of patients, and he enjoys the mental satisfaction that comes from the knowledge of a job well done. As the general advertiser says, "Repetition is reputation," so let us repeat over and over again and drum into our patients' consciousness this truth: *Neglect costs more than treatment: in pain, in time, and in money.*

We have gone a long way toward economic improvement when we succeed in impressing on our patients the saving to them in time and money that comes from frequent visits to the dental office for examination, prophylaxis,

¹²Ryan, Edward J.: The Economic Aspects of Preventive Dentistry, J. A. D. A. 18:896-904 (May) 1931.



"In the old order we conceived of dental economics as being concerned with efficiency in office procedures exclusively. In the new order we recognize that of more importance are the economic problems that lie outside the dental office: unemployment, low wages, health insurance, group practice, dental clinics."



"Neglect costs more than treatment in pain, in time, and in money."

laxis, and the treatment or correction of simple carious defects or gingival inflammation. The steady flow of returning patients, each paying a fair fee for dental treatment, in the long run shows a more favorable business office report than the treatment of the occasional and spectacular case and the attending intervals of idleness. Children's dentistry, prophylaxis, simple operative procedures which are of the greatest value to the patient can likewise be made profitable to the dentist. The shunning of the simple things which are producible in great volume, in the fruitless search for the will-o'-the-wisp of a spectacular and high fee case, is a common dental economic fallacy. Twenty satisfied patients paying \$10 each which they can afford is better than one patient paying \$200 which may represent a definite hardship.

I should like at this point to sug-

gest a simple form of dental health insurance that each dentist can put into practice tomorrow to his advantage and to the advantage of the public. This plan involves no application blanks, no written contracts, no involved legal phraseology. It is a noncontractual, personal relationship. This plan represents an attitude of mind, a sincere belief on our part that the frequent return of patients for the simple things has important professional and economic advantages, and its successful functioning is conditioned by our willingness and patience to examine and educate the individual patients in our offices. Rather than look afar to the distant fields and hope for some phenomenon whereby patients will flock in steady streams to our offices, let us begin tomorrow to educate the patients that we now have to the value of dentistry. Let them in turn be the disci-

ples who will carry the health message of dentistry to their friends and families. The most successful dental practices have always been and will always be founded on referred patients and not on the blatant ballyhoo of paid advertising.

Please do not misunderstand this simple plan. It is something that can be put into operation in the individual dental office with the patients that we have today. It is not a substitute, and will not replace the more inclusive and contractual forms of health insurance.

The preamble of the plan is this: America is an insurance-minded nation. We insure our lives, our incomes against the inroads of ill-health and accident, our homes and our goods against fire and robbery; we insure against the liability of an automobile accident, a misplaced golf shot and a suit for malpractice. But insurance for individual dental health remains unknown. Men who spend freely of their money for every conceivable form of insurance still too commonly begrudge money spent to "insure" their dental mechanism.

The plan itself is simply this: Let us present the case of preventive service to our patients as a form of insurance. The analogy is striking. The money spent each year for dentistry represents the "premium" necessary for the hazards, risks, and responsibility of a particular case. To reduce the hazards the patient must come regularly for the simple services. And like all other forms of insurance, the rate is higher in relation to the risks of the particular case: the person with a great susceptibility to caries, for instance, must pay a higher "premium" rate, represented in a greater yearly outlay for dentistry, than the person with greater immunity. Likewise, he must come more often. In common with life insurance alone, dental health insurance pays a "dividend." To recover the money spent for accident, health, fire, burglary, or liability insurance, it is necessary that we suffer a loss of some kind. Not so with individual dental health insurance. The "dividends," which are large and generous, begin the day that the patient subscribes for preventive dental service, and the dividends are payable, not in script, nor in stock, nor in cash, but in the greatest of all mundane rewards—health.

Let us tell our patients this simple story!



PROGENITORS OF PROGRESSIVE DENTISTRY

DR. MOFFATT & SHEPARD'S
FEES
For Professional Services.

Gold Fillings (smallest) \$5.00
Larger or more complicated \$5.00 to \$20.00
Each remaining Filling or
Pulp cavity and crown, 10.00 " 50.00
and upwards.
Extracting 1.00 to 10.00
Administration of Ether or
Nitrous Oxide 2.00 to 50.00
Cleansing or Polishing 5.00 " 10.00
Regulating Teeth 10.00 " 200.00
Advice without operation 2.00 " 25.00
* Loss of time for each hour reserved 3.00

* The above charges will be made for all
appointments not kept by patients unless
due notice is given.

No. 4 HAMILTON PLACE,
BOSTON, 1871

To DR. GEO. T. MOFFATT
AND L. D. SHEPARD, DR.

For Professional Services, 10.00

RECEIVED PAYMENT.

L. D. Shepard

(285)

ARTICLE XII.

*An ACCOUNT of several CASES of general DISEASES cured
by the EXTRACTION of decayed and diseased TEETH: In
a Letter to Dr. EDWARD MILLER, from BENJAMIN
RUSH, M. D. &c.*

DEAR SIR,

SOME time in the month of October, 1801, I attended Miss A. C. with a rheumatism in her hip-joint, which yielded, for a while, to the usual remedies for that disease. In the month of November it returned with great violence, accompanied with a severe tooth-ach. Suspecting the rheumatic affection was excited by the pain in her tooth, which was decayed, I directed it to be extracted. The rheumatism immediately left her hip, and she recovered in a few days. She has continued ever since to be free from it.

Soon after this I was consulted by Mrs. J. R. who had been affected for several weeks with dyspepsia and tooth-ach. Her tooth, though no mark of decay appeared in it, was drawn by my advice. The next day she was relieved from her distressing stomach complaints, and has continued ever since to enjoy good health. From the soundness of the external part of the tooth and the adjoining gum, there was no reason to suspect a discharge of matter from it had produced the disease in her stomach.

Some time in the year 1801 I was consulted by the father of a young gentleman in Baltimore, who had been affected with epilepsy. I inquired into the state of his teeth, and was informed that several of them in his upper jaw were much decayed. I directed them to be extracted, and advised him afterwards to lose a few ounces of blood at any time when he felt the premonitory symptoms of a recurrence of his fits. He followed my advice; in consequence of which I had lately the pleasure of hearing from his brother that he was perfectly cured.

I have been made happy by discovering that I have only added to the observations of other physicians, in pointing out a connection between the extraction of decayed and diseased teeth, and the cure of general diseases. Several cases of the efficacy of that remedy, in relieving head-ach and vertigo, are mentioned by Dr. Darwin. Dr. Faber relates that Mr.

VOL VI.

2P

Reproduced from the Medical Repository, 6:285, 1803.

THE past two years have been for many dentists a continuous night of darkness. Many have taken small comfort in knowing that the room of life has been crowded with disappointed and discouraged souls. Each individual's problem seemed so enormous that eyes often remained closed to a neighbor's difficulties. Dentistry surely has not profited while the world suffered, but there are signs, even proofs, that dawn is well on the way.

There has not been great inspiration in living and thinking in the present; the future has until recently seemed too uncertain to supply constructive help. It must remain for the honest past of dentistry to furnish suggestions for living and to divert attention from some of the worries of this new day.

The photostatic copy of a receipted bill for dentistry herewith reproduced was discovered among some papers belonging to the mother of a patient of mine. The names of the dentists are pleasant reminders of notable accomplishments, closer perhaps to Massachusetts memories than elsewhere, but, in the literature and activities of their day, prominent and respected.

Doctor Moffatt died in 1895 while Doctor Shepard lived until almost the present dental period: he died in 1911. Both men were recipients of honorary degrees from the Harvard University Dental School, Doctor Moffatt in 1870, Doctor Shepard in 1878.

It is a human weakness to regard enlightenment as a permanent benefit and to glance with friendly patronage toward days when dentistry was still a smaller child than it is at present. He would be bold indeed, in this age, who could muster fortitude enough to publish a list of fees, which he would be sure that patients, given the opportunity to take or leave, would for the most part leave. It is possibly no unkind criticism of our modern methods that we turn with reverence to the creeds of our dental leaders of another age. One lapses with intent and effectiveness into the day's parlance when can be said, "they had a lot on the ball."

It takes no close student of history to realize that 1871 was no economic paradise for dentists. Neither, it must be admitted, were conditions as complicated as they seem today. But attention is directed with emphasis to the courage evidenced by these notable men, and to the rather more than a possibility that the growing pains of dentistry may be partly alleviated by dipping with a generous hand into the healing chest of an honest dental past and through profiting by the experiences of our dental parents.

—John W. Cooke, A.B., D.D.S., Boston.

286 *Diseases cured by extracting decayed Teeth.*

Pettit, a celebrated French surgeon, had often cured intermittent fevers which had resisted the bark for months, and even years, by this prescription; and he quotes from his works two cases, the one of consumption, the other of vertigo, both of long continuance, which were suddenly cured by the extraction of two decayed teeth in the former, and of two supernumerary teeth in the latter case.*

In the second number of a late work, entitled, "Bibliothèque Germanique Medico-Chirurgicale," published in Paris, by Dr. Bluver and Dr. Delaroche, there is an account, by Dr. Siebold, of a young woman who had been affected for several months with great inflammation, pain and ulcers in her right upper and lower jaws, at the usual time of the appearance of the catamenia, which, at that period, were always deficient in quantity. Upon inspecting the seats of those morbid affections, the Doctor discovered several of the molars in both jaws to be decayed. He directed them to be drawn, in consequence of which the woman was relieved of her monthly disease in her mouth, and afterwards had a regular discharge of her catamenia.

These facts, though but little attended to, should not surprise us when we recollect how often the most distressing general diseases are brought on by very inconsiderable inlets of morbid excitement into the system. A small tumour, concealed in a fleshy part of the leg, has been known to bring on epilepsy. A trifling wound with a splinter or a nail, even after it has healed, has often induced a fatal tetanus. Worms in the bowels have produced internal dropsy of the brain, and a stone in the kidney has excited the most violent commotions in every part of the system. Many hundred facts of a similar nature are to be met with in the records of medicine.

When we consider how often the teeth, when decayed, are exposed to irritation from hot and cold drinks and aliments, from pressure by mastication, and from the cold air, and how intimate the connection of the mouth is with the whole system, I am disposed to believe they are often the unsuspected causes of general, and particularly of nervous diseases. When we add to the list of those diseases the morbid effects of the acrid and putrid matters which are sometimes discharged from carious teeth, or from ulcers in the gums created by them, also the influence which both have in preventing perfect

* Recherches sur differens Points de Physiologie de Pathologie et de Therapeutique, p. 353—354.

Diseases cured by extracting decayed Teeth. 287

mastication, and the connection of that animal function with good health, I cannot help thinking but our success in the treatment of all chronic diseases would be very much promoted by directing our inquiries into the state of the teeth in sick people, and by advising their extraction in every case in which they are decayed. It is not necessary that they should be attended with pain, in order to produce disease; for splinters, tumours, and other irritants before mentioned, often bring on disease and death when they give no pain, and are unsuspected as causes of them. This translation of sensation and motion to parts remote from the place where impressions are made, appears in many instances, and seems to depend upon an original law of the animal economy.

Philadelphia, November 22, 1802.

RUSH, BENJAMIN, (1745-1813), American physician, was born in Byberry township, near Philadelphia. In 1760 he graduated at Princeton. In 1768 he took his M.D. at Edinburgh, and after spending a year in the hospitals of London and Paris began practice in Philadelphia. In 1774 he founded with James Pemberton the first anti-slavery society in America. In 1776, as a member of Congress for the State of Pennsylvania, he was one of those who signed the Declaration of Independence. In 1787 he was a member of the Pennsylvania convention which adopted the Federal constitution. After lecturing many years at the Philadelphia medical college, he became professor of the institutes of medicine and of clinical practice, succeeding in 1796 to the chair of the theory and practice of medicine, at the University of Pennsylvania. In 1799 he was appointed treasurer of the U. S. Mint in Philadelphia. He died in Philadelphia on April 19, 1813, after a five days' illness from typhus fever.

—From the *Encyclopaedia Britannica*

REPORT OF A CASE OF SALIVARY CALCULUS IN WHARTON'S DUCT

E. J. MOHN, D.D.S., of Elmore, Minnesota, reports the case of a man, aged 55, who came to his office because of soreness in the lower jaw in the region of the left first bicuspid on the lingual side. The patient wore a full lower denture.

Examination revealed some swelling and considerable inflammation with pus discharging from the orifice of Wharton's duct. When pressure was applied there was a tenderness

Fig. 1—Location of stone before removal.

Fig. 2—Roentgenographic appearance of stone after removal.

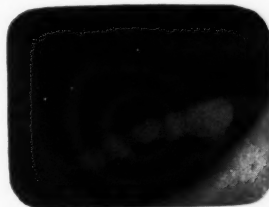


Fig. 1



Fig. 2

and the swollen area was firm. A roentgenogram revealed a large stone in the shape of a lower bicuspid. The patient was instructed not to wear the denture for a number of days in order to relieve the irritation. As soon as the soreness and inflammation had subsided, not before, the stone was removed under novocaine anesthesia. Suturing of the wound was not found necessary because the edges closed together perfectly. Since there was no evidence of infection at the time of the operation a drain was not used. Aside from a slight soreness after the anesthetic had passed off the patient experienced no discomfort whatever.

No one can do for YOUR EYES what you can do for teeth

Damaged teeth can be repaired or replaced but damaged eyes are impaired forever. Protect yourself, as days grow shorter, from the menace of dental eye strain with a PELTON EQUIPOISED OPERATING LIGHT—its scientific cluster provides equal illumination over the entire operating area. Now \$60.00 at your dealer's.

THE PELTON
& CRANE CO.
DETROIT, MICH.



PROTECT THEM WITH A
PELTON LIGHT

DENTAL DIGEST BINDERS

YOUR file of *The Dental Digest* is invaluable for reference purposes. Preserve the copies by placing them in a *Dental Digest* binder. The binders are beautifully bound in blue imitation leather and when the complete volume is contained therein, it makes a reference book equal to any you now have in your library. The price for the binder is \$2.00. If you want your name and degree stamped on the front cover, the cost is \$2.25.

THE DENTAL DIGEST

1125 Wolfendale Street

Pittsburgh, Pa.

LETTERS TO THE EDITOR

"We are very enthusiastic over the new DENTAL DIGEST and trust that you will be able to continue the high standard that you have started."—H. S. HALL, D.D.S., Ketchikan, Alaska.

"I am taking this opportunity of congratulating you upon the charts published in the May issue of your excellent magazine.

"I would like to know the price of the whole set as I would like to use them in talks given before the dental hygiene teachers working in the school system and they no doubt would be very much appreciated by the dental hygienists themselves."—C. D. VAN ALSTEIN, D.D.S., Supervisor of Oral Hygiene, Albany, N. Y.

"I renewed this about two weeks ago; in case it was lost continue sending it and bill me once a year, until you hear from me to discontinue. I do not want to be without THE DIGEST." HARRY E. GROVE, D.D.S., Hayward, Wis.

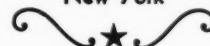
"I enjoy reading your publication and find it most helpful for the young graduate, so I would not like to miss any issues."—DAVID E. WEISS, D.D.S., Boston, Mass.

"Your DIGEST continues to improve and judging from contents, it meets the profession's approval. Several features are alone worth the entire price. 'Educating the Dental Patient' is likely the one most needed. I use these illustrations daily—more power to you."—H. F. CEVELY, D.D.S., Severy, Kansas.



THE GRIFFIN SCHOOL
OF
ORTHODONTIA

New York



Next sessions will be held
at intervals throughout
the year beginning
October 1, 1933

Classes
Limited

Write for prospectus

DR. EDWARD M. GRIFFEN
115 East 61st Street
New York City

THERE'S ONLY ONE BAKELITE
DENTURE MATERIAL...AND THAT IS...

LUXENE

What **BAKELITE** Means to Industry
LUXENE Means to Dentistry

● So infinite are the uses of Bakelite in industry that virtually everyone benefits both directly and indirectly from its application in various forms to the needs and conveniences of modern life. . . Just as in the industrial and technical fields Bakelite has practically displaced vulcanite and other plastics suitable only for novelty use, so will Bakelite (Luxene) supersede vulcanite and these other plastics in the field of prosthetic dentistry — not only in the production of new cases, but in the replacement of millions of unsightly and insanitary dentures now in service. . . Remember, there are other synthetic resins, but only one BAKELITE. Be sure every Luxene denture you order is delivered in the original fawn colored LUXENE container.

LUXENE

A THERMO-CURING, PHENOLIC RESIN

DENTURE MATERIAL DEVELOPED

PRODUCED AND SPONSORED BY

BAKELITE CORPORATION

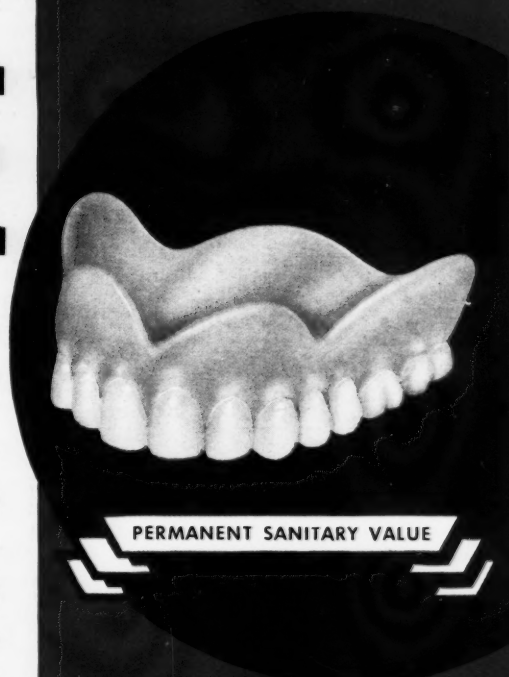


BAKELITE

TRADE MARK REG. U.S. PAT. OFF.

Distributed by

The Ransom & Randolph Company • Toledo, Ohio



PERMANENT SANITARY VALUE

THE
LUXENE
DEMONSTRATOR



● In many instances your reference to Luxene as *Bakelite* will be sufficient assurance to the patient of its accuracy and stability of form, its immunity to stain, its freedom from taste or odor, and its durability under stress and strain. But unless he has seen a Luxene denture, he cannot visualize its remarkable resemblance to natural gum tissues. That's why you will find it helpful to have a specimen denture on hand. It will enable you to point out also the porcelain-like density and hardness and the "baked-on" union with teeth which give Luxene that outstanding advantage so vital to the comfort and health of the patient—its *permanent sanitary value*.

LUXENE DEMONSTRATOR

Comprising a Specimen Denture and Fifty
Ethically-Worded Announcement
Cards for Denture Patients.

Your Dealer or Laboratory Can Supply It

You Want Maximum Service from Every Partial Denture

*[you are not gambling for maximum service
when you use Spyco or Tinker golds plus
the Spyco simplified tempering technic]*

THERE is a wide variety of gold alloys in common use, just as there are many methods of tempering gold. The tempering technic that produces excellent results for one gold may fall far short of perfection when used with another alloy of different composition.

Large cast gold restorations are seldom put into use in a condition to render maximum service. Sometimes this maximum service is not attained because the tempering technic is not adapted to the particular gold used. Sometimes failures are the fault of the gold itself. Sometimes imperfect results are due to mistakes in following a complicated heat treating technic.

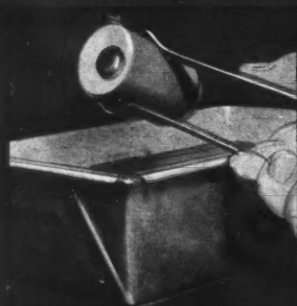
Spyco has provided an insurance against the common failures in partial denture service; *first* by producing gold alloys that are scientifically compounded to meet every requirement of both the technician and the denture wearer. *Second* by making available a simplified tempering technic that obviates the necessity of complicated routine and expensive apparatus.

The pictures in the panel show the simple steps of the Spyco tempering technic. By this simple process an increase of from 25% to 50% in strength and hardness can be attained, combined with elasticity and other physical characteristics that are fundamental in rendering maximum partial denture service.

The Spyco tempering technic involves no expensive equipment. A good thermometer, a pyrex beaker, your laboratory burner and a supply of tempering salts is all the apparatus you need. A complete Spyco tempering outfit can be purchased for \$3.00.

The technic is completely described in a twelve page booklet, which gives the heats and time required for the different Spyco and Tinker golds as well as other information that will make your gold casting work easier and your results more satisfactory. The coupon on page 372 will bring you a copy.

**SPYCO SMELTING & REFINING COMPANY,
Minneapolis, Minnesota.**



1.—Place casting into water as soon as the tempering salt is done.



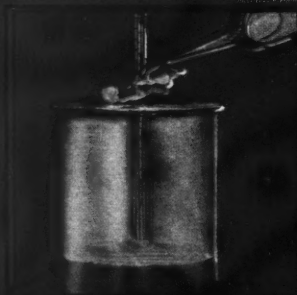
2.—Clean thoroughly and polish.



3.—Make all necessary adjustments before using in the dental office.

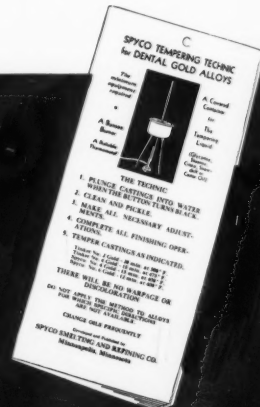


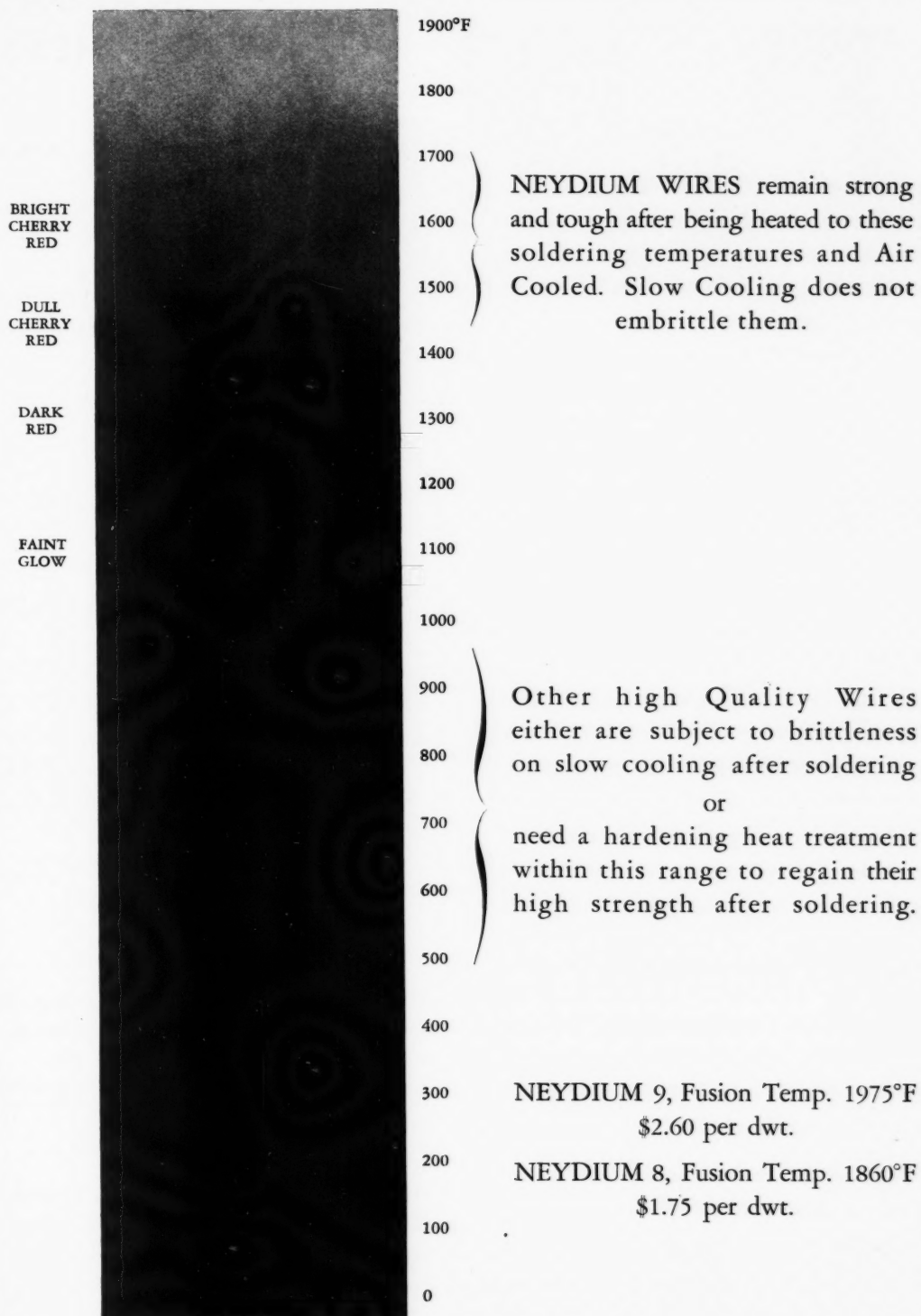
4.—Complete all denture work.



5.—Complete all denture work.

This booklet, *Practical Tempering of Dental Gold Alloys*, gives complete information on the Spyco tempering technic, as well as other information that will be of practical help in your gold casting work. The coupon on page 372 will bring you a copy.





THE J. M. NEY COMPANY
HARTFORD, CONN. CHICAGO, ILL.



An Advanced Technique for KERR CRISTOBALITE INLAY INVESTMENT

In less than a year, Kerr Cristobalite Inlay Investment has become a leader in the investment field. Its high expansion has proven invaluable. To furnish a means of easily varying this expansion, we present the Phillips Control System, utilizing besides Cristobalite, Kerr Control Powder and the Kerr Automatic Scale. This system provides any desired amount of thermal expansion between 0.7% and 1.3%.

It has been observed that large, bulky inlays require more expansion than small, thin ones, and less

expansion is necessary when investing on a warm day. The Phillips system makes quickly available the exact amount of expansion for each type of inlay and for each investing temperature. Furthermore all inlays are cast at red heat.

Automatic and fast, this technique appeals to the most fastidious for its accuracy, but it is so easy and simple to use, any dental assistant can master it with her first casting. Kerr Cristobalite Inlay Investment, Kerr Control Powder, and Kerr Automatic Scale are available through your dealer.

Manufactured by

THE DETROIT DENTAL MFG. CO.

6081—12th Street Detroit, Mich.

SNAPON POLISHERS

New



Improved

Do you like to reverse engine polishers?

Do you like to reach the most tooth surfaces?

Do you like to have patients comment on your highly effective yet complete gentleness in the cleaning of their teeth?

Then Try Snapon Polishers



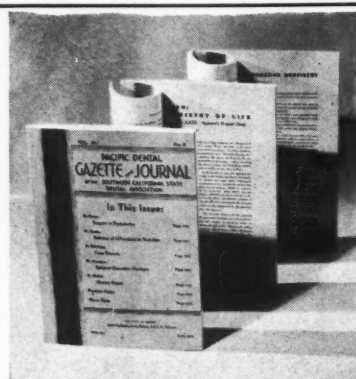
Made of the best grade of flexible rubber, soft enough to adapt itself to practically every exposed tooth surface but strong enough to get to work.

The polisher contains a metal cup and is attached to the mandrel by a single snap. The cup supports the rubber walls of the polisher making it work more rapidly.

There is an angle mandrel to fit your handpiece. The flange on the polisher fits closely over the joint in the head of the angle handpiece and fully protects it.

*Polishers, 60c a dozen
Steel mandrel for angles,
10c each*

YOUNG DENTAL MFG. CO.
4958 Suburban R. W.
St. Louis, Mo.



THE GAZETTE OF 1933

Modern in presentation. Filled with the latest constructive dental material. A true servant to dentistry for forty-one years. Always offering the most progressive information to its readers. You will enjoy reading the Gazette.

Special Offer—18 Months \$1.50
(For the one year price—
6 months free.)

Pacific Dental Gazette-Journal

Jas. W. Edwards Co.
450 Sutter St.,
San Francisco, Calif.

D.D.

Please send me the Pacific Dental Gazette-Journal through the Special Offer of 18 months for \$1.50 () remittance enclosed () charge my dealer.

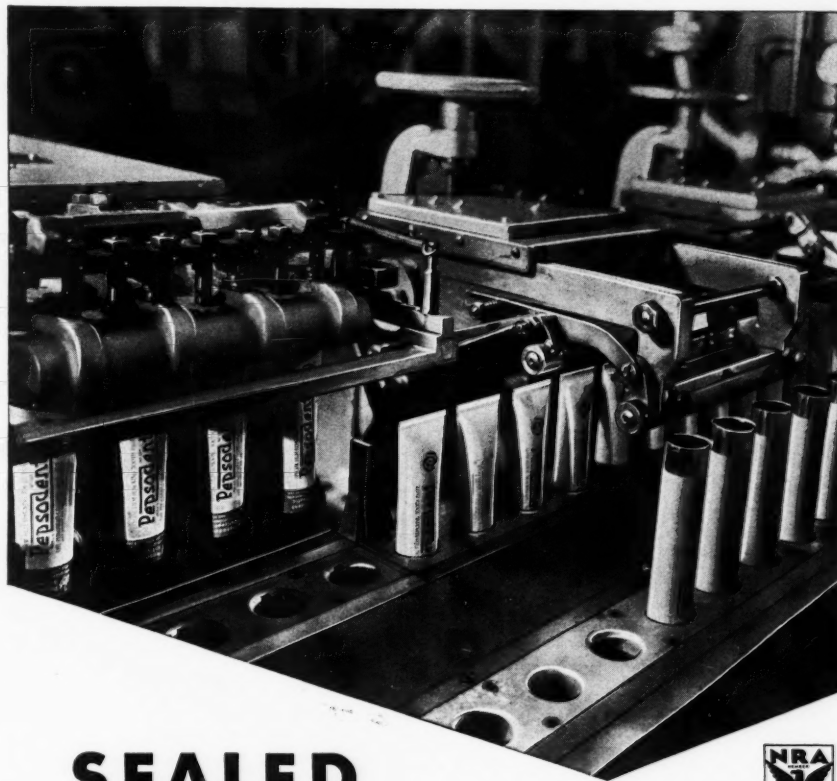
Name

Address

City & State

Dealer

Foreign Special Offer 18 months—\$3.00



SEALED WHILE IT'S MADE



PEPSODENT Tooth Paste does not come into sight for one second during its manufacture. It is made in machines sealed to the open air.

Every scientific man is interested to hear that Pepsodent's materials are not touched by human hands—that they are not

exposed to the air as they pass through the many steps in manufacture.

Such is the scientific progress made in the manufacture of the film-removing tooth paste. Teeth are precious. Why risk them on any tooth paste but the finest—the purest—the safest?

THE PEPSODENT CO., CHICAGO

Timely Advice about DIET

EXTENSIVE extractions or instrumentation temporarily handicap the patient by interfering with mastication of solid food. The patient expects you to help him solve the problem of "What can I eat?"

As part of the semi-soft or liquid diet prescribed, why not include Ovaltine—the palatable "Food-in-a-Drink"—so widely recommended by the profession as a diet reinforcement.

Ovaltine adds to the diet valuable nutritional elements including vitamins and minerals—notably iron, calcium and phosphorus—in a form which imposes no strain on digestion.

Where post-operative pain or nerve tension tends to interfere with sleep, a warm "night-cap" of Ovaltine will often prove sufficient to lull the patient into refreshing slumber.

Patients showing a tendency to dental caries would do well to add Ovaltine to their regular diet because it provides in assimilable form the important minerals so vitally essential to the building of a sound tooth structure.

Fill in the coupon—send it in together with your card, professional letterhead or other indication of your professional standing, and some samples of Ovaltine will be gladly sent to you.

OVALTINE

The Swiss Food-Drink

Manufactured under license in U. S. A. according to original Swiss formula



This offer is limited only to practicing dentists, physicians and nurses.

THE WANDER COMPANY,
180 No. Michigan Ave.,
Chicago, Ill.

Dept. No. D.D.9

Please send me, without charge, some samples of OVALTINE for distribution to my patients. Evidence of my professional standing is enclosed.

Dr.

Address.....

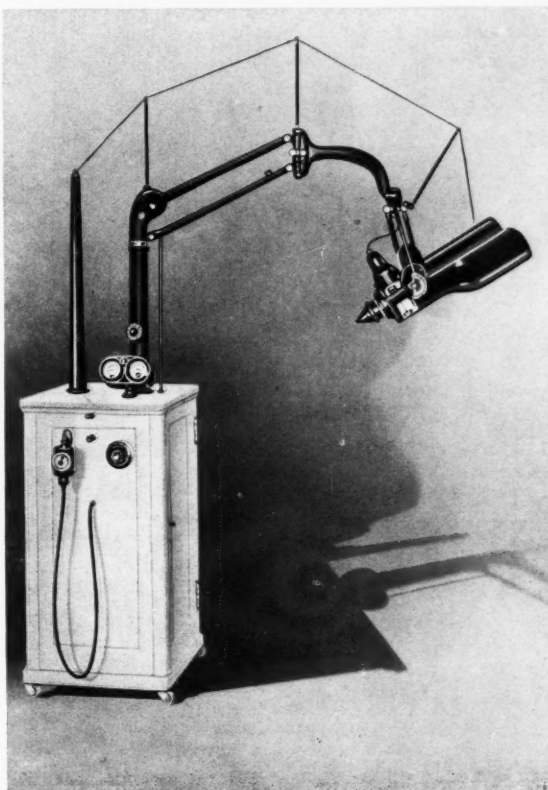
City.....State.....

Canadian subscribers should address coupons to A. Wander, Limited, Elmwood Park, Peterborough, Ontario.

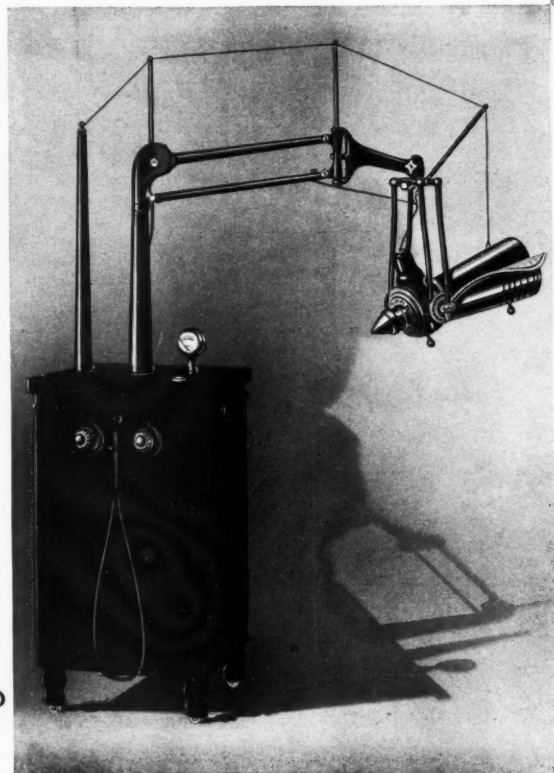
Two WEBER Machines that meet the Most Exacting X-Ray Requirements

YOUR patients are entitled to both complete and modern service. That cannot be rendered without an up to date X-Ray—and the public is becoming educated to that fact rapidly. Patients quietly slip away from those dentists who are not prepared to diagnose thoroughly. No dentist really can afford to be without an X-Ray in his office ready for immediate use. This is one piece of equipment that not only pays for itself but helps pay for other improvements.

We offer two models at different price levels. Both have the Coolidge tube and the same powerful transformer. The difference is in design, timing device and electrical instrument equipment. Both are the result of long and successful experience and both will give the best possible dental X-Ray results.



REGAL
MODEL



IMPROVED
MODEL 1

The Regal model is the latest and includes certain refinements which are appreciated by many. It is necessarily priced somewhat higher. Both, however, call for a relatively small investment and we would like to send you literature or arrange for a demonstration to prove to you the exceptional values offered.

Our new catalog is a beautiful book printed in colors and presents the complete Weber line of X-Rays, chairs, units, engines, lights, cuspidors and cabinets. It will be sent free to any dentist who is considering improving his service and practice through the installation of modern equipment.

Write us or use the coupon on page 372. We believe you will find the book very helpful.

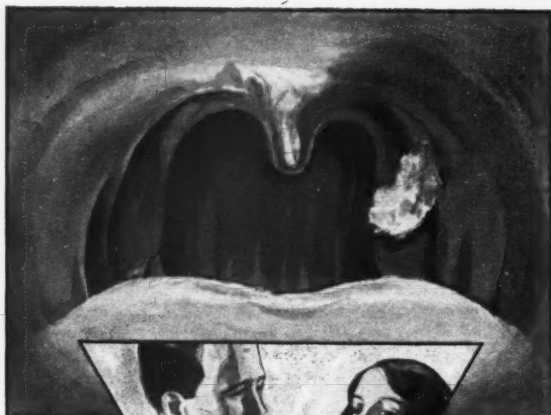
THE WEBER DENTAL MFG. CO.
CANTON, OHIO

Export Office: 149 Broadway, New York City

WEBER

Simplicity . Economy .

Efficiency . Safety



Vincent's infection

A yellowish or grayish-white patch on the tonsils or on the gingival margins—the smear shows *Borrelia Vincent's* and fusiform bacillus—and the diagnosis is "trench mouth" or necrotic gingivitis. The infection may start in the throat, but the gums seldom escape.

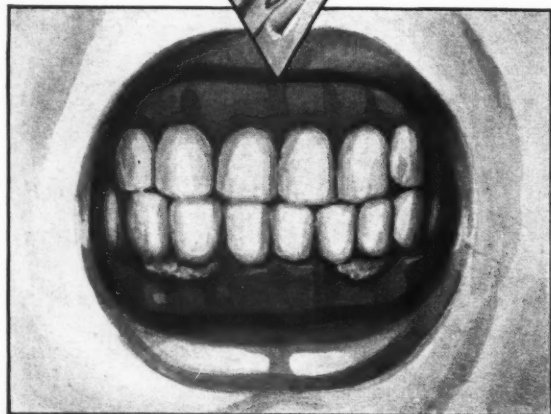
Apply thick paste to lesions and around teeth



Spray thoroughly around and between teeth



Instruct patient to rinse mouth several times daily



The painful sensitiveness of the gums and the feeling of discomfort in the affected teeth is greatly mitigated by the soothing effect of Vince. A thick paste of Vince is applied to the lesions and gums; it is rinsed off in about ten minutes; the procedure is repeated several times. Cavities, pockets and interdental spaces are thoroughly sprayed with freshly made Vince solution. The patient is instructed to rinse the mouth at home several times daily with a solution of Vince.

This simple treatment is proving effective not only in trench mouth but also in pyorrhea and other oral infections.

Vince, of course, recommends itself for after-treatment, for prophylaxis, and for regular mouth hygiene.

Vince paste—add few drops of water and stir.

Vince solution—one teaspoonful in a glass of water makes a two percent solution.

TRIAL SUPPLY AND LITERATURE SENT ON REQUEST.



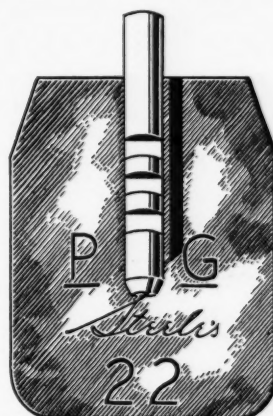
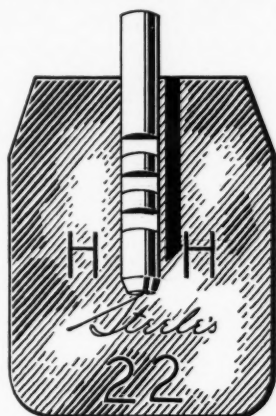
VINCE

VINCE LABORATORIES, INC. - - - 107 West 18th Street, New York City

Two quality Backings

Steel's

HIGH HEAT — PLATINIZED GOLD



NON—OXIDIZING

High Heat Backings are new quality Backings made available at unusual low prices. H. H. Backings have a fusing point of 2300°F, and require no preliminary preparation before casting.

Sold only in quantity lots in Pack-O-Back selections.

A new improved Platinized Gold Backing. 350° Higher fusing than the old P. G. Backings. (Fusing point 2200°F.) No preliminary preparation is necessary before casting.

Increased quality at No increase in price.

ONCE USED . . . ALWAYS PREFERRED

THE COLUMBUS DENTAL MFG. CO. Columbus, Ohio—U.S.A.

IT IS AN ACCEPTED FACT

ALL GOOD WIRE IS "SELF-HARDENING"

It is a common physical property of all good wire to harden with manipulation. This is due to the nature of the alloy used and the manner in which it is finished for use. This "self-hardening" phenomenon can be an advantage, or a disadvantage. It means, merely, that the wire becomes harder, i.e., more brittle, in proportion to the amount of cold shaping involved. . . . With some wires, too much manipulation may render the restoration fragile (brittle) and unsatisfactory.

To avoid this, all Williams Clasp Wires are furnished, ready for use, in their *softest annealed condition*. This makes manipulation easy, and

assures maximum tenacity in the finished restoration. It means too, that additional heat treatment—especially in Clasp Wires No. 1, 2, 3, 6—is not necessary.

Only Williams Wire Is Annealed Under Hydrogen

Added to the special "softest-annealed" advantage of Williams Wire is the *Williams Process* which melts the alloy inductively and stirs it magnetically—then performs the finishing heat treatment electrically under hydrogen atmosphere. The *Williams Process* is unique in dentistry, assuring an absolutely pure alloy, perfectly uniform, non-oxidized and not contaminated.

The WILLIAMS GOLD REFINING CO., Inc.

San Francisco, Calif.

BUFFALO, N. Y.

Fort Erie, N. Ont.

ALL GAGES FOUR SHAPES

- ◐ HALF-ROUND
- ROUND
- ◌ OVAL
- SQUARE

Ask your Dealer for
the Handy Chart on
Williams Clasp Wire

A WIRE FOR EVERY PURPOSE

No. 1
Platinum
Color
\$3.10

No. 2
Platinum
Color
\$2.60

No. 3
Gold-Platinum
Color
\$2.10

No. 4
Gold Color
\$1.60

No. 5
Light Gold
Color
\$1.15

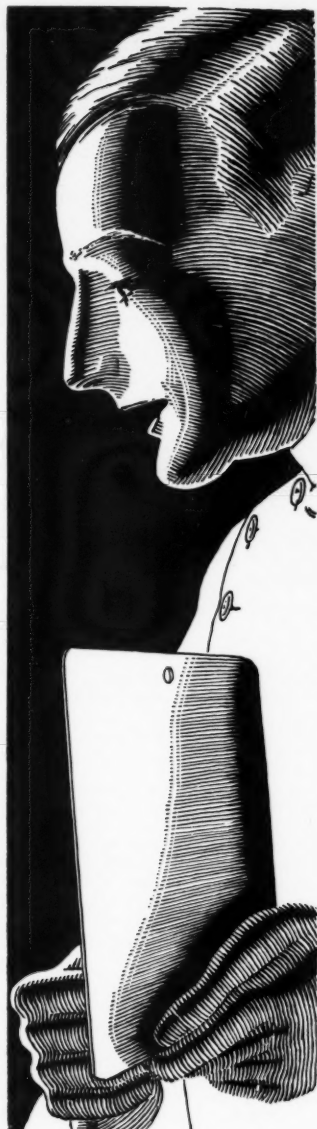
No. 6
White-Gold
Color
\$1.90

No. 7
White Gold
Color
\$1.25

WHEN YOU ORDER
GOLD . . . SPECIFY

WILLIAMS

Correction: Add 30% to above prices



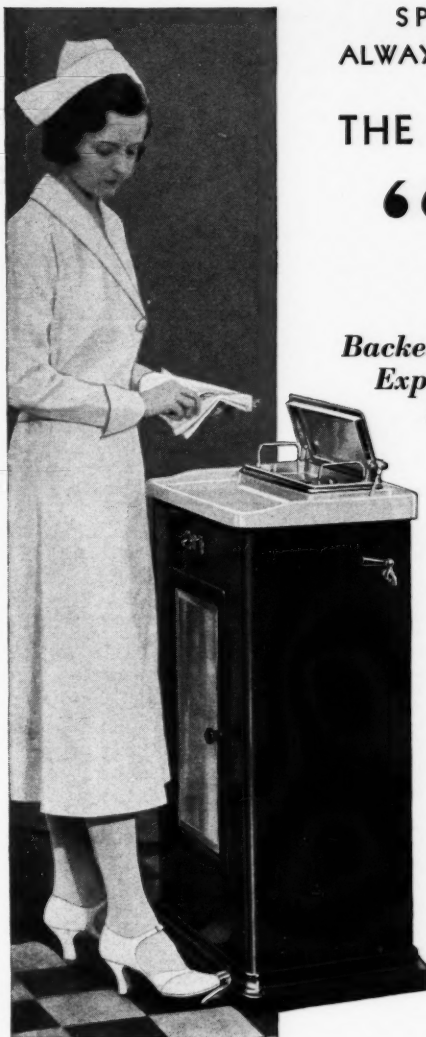
**"DENTAL ORAL SURGERY
has helped me considerably"**

"A few months ago I purchased a copy of DENTAL ORAL SURGERY and now, since I have read the book thoroughly, I can truthfully say that this investment was one of the best I have ever made. It is a remarkable book and I refer to it regularly in my practice."

You, too, will find that the purchase of DENTAL ORAL SURGERY is an investment and not an expenditure. It describes Doctor Cogswell's unique exodontia technique completely. The technique is illustrated adequately step by step with illustrations which really show what the author wants to pass on to his colleagues.

The price is only \$10. The coupon on page 372 is for your convenience. Clip and mail it today.

THE DENTAL DIGEST
1125 Wolfendale Street
Pittsburgh, Pa.



SPECIALIZATION
ALWAYS MEANS LEADERSHIP

**THE NEW CASTLE
"50"**

*Backed by 50 Years of
Experience Exclusively in
Sterilizing Equipment*

THE ONLY STERILIZER
WITH BOILER CAST-IN-
BRONZE TO LAST A
LIFETIME

THE ONLY STERILIZER
WITH ACID-PROOF STAIN
PROOF TOP OF CHINA
THAT DOESN'T CHIP

.. AND, OF COURSE, THE
"50" IS FULL AUTOMATIC

The Castle "50" is so nam-
ed in commemoration of
the 50 years of Castle Le-
adership and exclusive spe-
cialization in sterilizing
equipment. It stands out
a worthy achievement of
this half century of pro-
gress. Truly, you cannot
buy a better sterilizer at
any price.

In any color.....\$114.00

Extra for black top.....\$2.00

Complete information from Wilmot Castle Company
1233 University Avenue, Rochester, New York.
Use coupon on page 372

CASTLE STERILIZERS

ISN'T IT RIDICULOUS - - -

—to handicap your denture RESULTS because you are not equipped for modern work? Old tools and old methods are not used by the leaders in dentistry.

Buffalo Dental furnishes vulcanizers, dry heat presses, hot oil presses, and all incidental equipment for producing the best dentures with any denture material. Send for information on the processes that interest you.

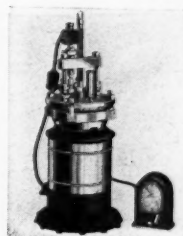


Buffalo Dental Manufacturing Co.

Kehr & Urban Sts.

Buffalo, N. Y.

See coupon on page 372



The New Edson

COUPONS

See second cover

D.D.9

GENERAL ELECTRIC X-RAY CORP.
2012 JACKSON BLVD.
CHICAGO, ILL.

Send complete information concerning
your new CDX X-Ray.

Dr. _____
Address _____
Dealer _____

See pages 345-352

D.D.9

RITTER DENTAL MFG. CO.
ROCHESTER, N. Y.

Send complete information concerning
the Ritter Operating Light. ☐ Ritter
X-Ray. ☐

Dr. _____
Address _____
Dealer _____

See page 360

D.D.9

THE PELTON & CRANE CO.
632 HARPER AVE., DETROIT, MICH.

Send complete information concerning
Pelton Operating Light.

Dr. _____
Address _____
Dealer _____

See page 360

D.D.9

DR. EDWARD M. GRIFFIN
115 EAST 61st STREET, NEW YORK CITY.

Please send prospectus mentioned in your
advertisement.

Dr. _____
Address _____

See page 361

D.D.9

RANSON & RANDOLPH CO.
TOLEDO, OHIO.

Send me complete information on Lux-
ene.

Dr. _____
Address _____
Dealer _____

See page 362

D.D.9

SPYCO SMELTING & REFINING CO.

51 SOUTH THIRD STREET,
MINNEAPOLIS, MINN.

Please send booklet "Practical Tempering
of Gold Alloys."

Dr. _____
Address _____

See page 366

D.D.9

THE WANDER COMPANY

180 N. MICHIGAN AVE., CHICAGO, ILL.

Please send me, without charge, some
samples of OVALTINE for distribution
to my patients. Evidence of my profes-
sional standing is enclosed.

Dr. _____
Address _____
City _____ State _____

See page 367

D.D.9

THE WEBER DENTAL MFG. COMPANY
CANTON, OHIO

Please send me a copy of your latest cat-
alog.

Dr. _____
Address _____
Dealer _____

See page 368

D.D.9

VINCE LABORATORIES, INC.

WEST 18th ST., NEW YORK CITY.

Please send trial supply of Vince.

Dr. _____
Address _____
Druggist _____

See page 371

D.D.9

THE DENTAL DIGEST

1125 WOLFENDALE ST., PITTSBURGH, PA.

Please send me a copy of "Dental Oral
Surgery," at \$10. Send C.O.D. ☐ Send
through my dealer. ☐

Dr. _____
Address _____
Dealer _____

See page 371

D.D.9

WILMOT CASTLE COMPANY

ROCHESTER, N. Y.

Send me data on Sterilizing Technique
with Castle Sterilizing Equipment.

Dr. _____
Address _____
Dealer _____

See page 371

D.D.9

BUFFALO DENTAL MFG. CO.

KEHR & URBAN STS., BUFFALO, N. Y.

Please send me complete information con-
cerning Buffalo Vulcanizers.

Dr. _____
Address _____
Dealer _____



WILSON'S
CO-RE-GA
(POWERED)

The Perfect Adhesive for Dentures

CO-RE-GA never varies in quality. It is prepared carefully and with mathematical uniformity. For many years it has been accepted by the Dental Profession as the Perfect Denture Adhesive Powder

PLEASE SEND FREE SAMPLES FOR PATIENTS
Dr. _____
COREGA CHEMICAL CO.
301 ST. CLAIR AVE. N.W.
CLEVELAND, OHIO U.S.A.
This Coupon is for Dentists use Only

The Trial Size CO-RE-GA is furnished FREE to Dentists
Mail the Coupon for YOUR SUPPLY

• THE COMPLETE EQUIPMENT • *at a Substantial Saving*



Special Introductory Package

For the dentist who has hesitated to become acquainted with the cartridge system of injection because of the initial outlay of money the low cost of this *Special Introductory Package* should be of particular interest.

Cook and Waite Special Introductory Packages are priced so that the "CARPULE" Syringe comes to you almost free of charge. Here is an opportunity for those already using Cook or Waite Local Anesthetics to acquire another genuine "CARPULE" Syringe at practically no additional charge.

Either Cook or Waite Local Anesthetics are furnished in this package—50 cartridges, of one formula only. A genuine "CARPULE" Syringe, short grip, chrome plated, as well as 1 dozen each of No. 2, 25 gauge, and No. 4, 23 gauge, Rustless Steel Needles complete with equipment.

Ask the salesman who calls on you for particulars, or write for further details.

Carpule
TRADEMARK REG. U.S. & FOREIGN COUNTRIES
**CARTRIDGES • SYRINGES
NEEDLES • • • OUTFITS**

COOK LABORATORIES, Inc.

170 Varick Street, New York, N. Y.

Canada: Cook Laboratories of Canada Ltd., Windsor Ont.

THE ANTIDOLOR MFG., Inc.

Canada: Fort Erie, Ont.

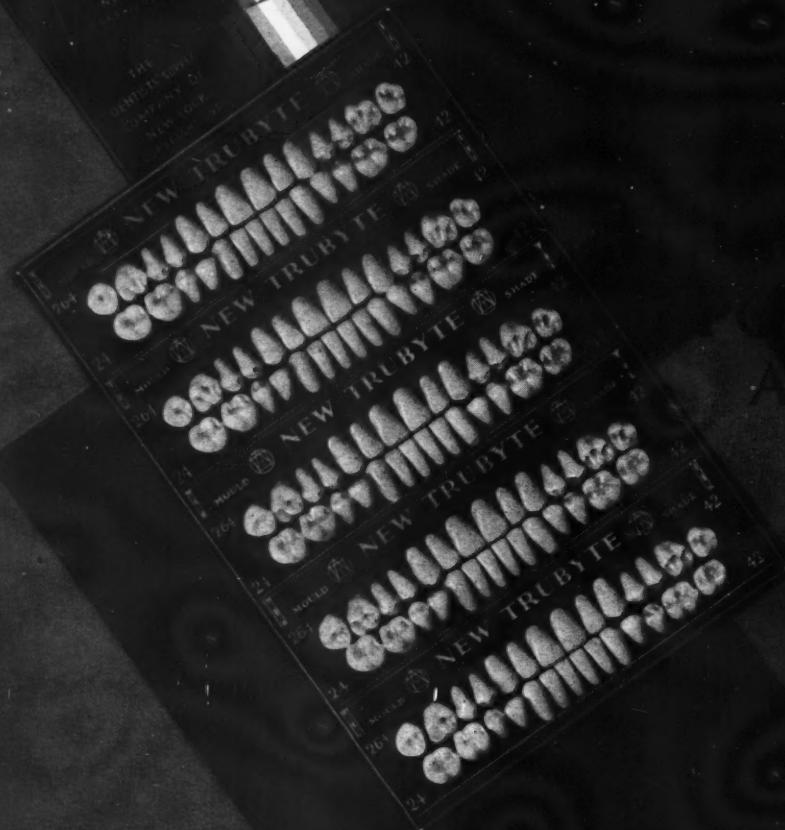
Waite's
TRADEMARK REG. U.S. & FOREIGN COUNTRIES
LOCAL ANESTHETIC

DIVINUM • EST • OPUS • SEDARE • DOLOREM
ALLEVATION OF PAIN IS A DOUBLY TAKEN
HYPHOCRATES

UNIQUE IN COLOR BLENDING

UNIQUE IN COLOR BLENDING

NEW TRUBYTE



REALIZE
THE TRUBYTE
LESS EXCLUSIVE
ADVANTAGES FOUND
IN NO OTHER TEETH
YOU WILL USE THEM
EXCLUSIVELY

IT PAYS

THE DENTIST'S SUPPLY COMPANY OF NEW YORK